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CALGARY

<u>Speaker</u>	<u>Agency</u>	<u>Street</u>	<u>City</u>	<u>Postal Code</u>
Martin Serediak	Arusha Cross Cultural Centre	223 - 12 Ave. S.W.	Calgary, Alta.	
Alan Wolfleg Ed Burnstick	Blackfoot Reserve			
H. Gorden Pearce	Calgary Chamber of Commerce	630 - 6th Ave. West	Calgary, Alta.	
Jake Binnema	Calgary Christian Action Com.	504-7 Ave. N.E.	Calgary, Alta.	
Roy Littlechief	Calgary Urban Treaty Indian Alliance			
Mr. Poyen	Canadian Petroleum Assoc.		Calgary, Alta.	
D. Pimlott	CARC			
Rev. Glenn Willms	Church and Society Committee of the United Church of Canada, Calgary area		Calgary, Alta.	
Rod Sykes	City of Calgary		Calgary, Alta.	T2P 2M5
Dr. Gary Donovan	Com. for Independent Canada	135 Gateway Place	Calgary, Alta.	T3E 4J3
Alan Carter	Committee for the Responsibility in Science	1103-6223 31 Ave.N.W.	Calgary, Alta.	
Carl O. Nickle	Conventures Ltd.	100-330 9th Ave S.W.	Calgary, Alta.	T2P 1K7
Father Gauthier	Council of Social Affairs of the R.C. Diocese of Calgary	210 - 18th Ave. S.W.	Calgary, Alta.	T2S 0C1

CALGARY

<u>Speaker</u>	<u>Agency</u>	<u>Street</u>	<u>City</u>	<u>Postal Code</u>
E.E. Cudby		c/o Chevron Standard, 400 Fifth Ave.	Calgary, Alta.	T2P 0L7
Claudette Croteau	CUSO - Univ. of Calgary	147 Science A Bldg.	Calgary, Alta.	
R.O. Jonasson	Dominion Bridge Co. Ltd. Alberta Branch	P.O. Box 2430	Calgary, Alta.	T2P 2M9
Prof. Phil S. Elder	Faculty, Environmental Design	U. of Calgary 2920 - 24 Ave. N.W.	Calgary, Alta.	T2P 2M9
Robert Blair	Foothills Pipe Lines Ltd.			
M.E. Thiel	Foremost Int'l Industries	1616 Meridian Rd.N.E.	Calgary, Alta.	T2A 2P1
Mr. Wayne Getty		210 Dalgetty Bay N.W.	Calgary, Alta.	
Kaz Iwaasa		702, 4020-37 St. S.W.	Calgary, Alta.	T3E 3C4
Albert Irye	Lindberg Transport Limited		Hay River	
Noel C. Llanos		6319 Crowchild Trail	Calgary, Alta.	T3E 5R6
Mr. Gregory M. Mayer		335 Avonburn Rd.S.E.	Calgary, Alta.	T2H 1N9
Mr Terry Lusty	M-tis Historical Society		Calgary, Alta.	
W.J. Milne		500 Bradie Bldg., 630 - 6th Ave. S.W.	Calgary, Alta.	
Mrs. Catherine Osborne		1335 Northcote Rd.	Calgary, Alta.	T2K 2K6

CALGARY

<u>Speaker</u>	<u>Agency</u>	<u>Street</u>	<u>City</u>	<u>Postal Code</u>
Bruce Sider	Petroleum Industry Comm. on Employment of Northern Residents	P.O. Box 130	Calgary, Alta.	T2P 2H7
Mr. Ralph L. Potts		523 - 24th Ave N.E.	Calgary, Alta.	T2E 1X4
Dr. Joan Ryan				
John E. Rymes	J.E. Rymes Engineering Ltd.	704-11 Ave. S.W. #200	Calgary, Alta.	T2R 0E4
Margaret Prior	Sierra Club, Western Canada Chapter	3019 Bell Ave. N.W.	Calgary, Alta.	T2L 1K6
Nelson Small Legs				
Stephen Tyler	Southern Support Group	1428 Windsor St. N.W.	Calgary, Alta.	
Deanna Greyeyes				
Mr. G.C. McCaffrey	Steel-Flo Industries Ltd.	2900 Bow Valley Sq. II 205 - 5th Ave S.W.	Calgary, Alta.	T2P 2W5
Chief John Snow	Stoney Tribal Council	Box #29	Morley, Alta.	T0L 1N0
A. Douglas Brown	Sun Oil Company Ltd.	P.O. Box 38, 500 - 4th Ave. S.W.	Calgary, Alta.	T2P 2V5
Miss L.P. Turbayne		#3 1110-12th Ave.S.W.	Calgary, Alta.	T2R 0J7
H.A. Buckmaster	U. of Calgary, Physics Dept.	2920-24 Ave. N.W.	Calgary, Alta.	T2N 1N4

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MACKENZIE-VALLEY PIPELINE INQUIRY

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COMMISSIONER

Mr. Justice Thomas R. Berger

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CALGARY, ALBERTA

May 13 & 14, 1976

Thursday, May 13, 1400

1. Rod Sykes, Mayor, City of Calgary ✓ *5:30 - 6:30*
2. John S. Poyen, President, Canadian Petroleum Association ✓
3. Patricia E. Kariel, Chairman, Sierra Club, Western Canada Chapter ✓
- ? 4. K.N. Beckie, Chairman, Energy Committee, Council of Social Affairs, R.C. Diocese of Calgary ✓
5. David Hamer, The National and Provincial Parks Association of Canada, Banff/Calgary Chapter ✓
6. P.D. Kennedy, Counsel, Sun Oil Company Limited
7. Noel C. Llanos ✓
8. Elizabeth Reid and Alice Violine
- ? 9. W.J. Milne - *airships 4.5 about to capital cost also use of airships for construction*
10. Ralph L. Potts
- ? 11. Bruce Sider, Chairman, Petroleum Industry Committee on the Employment of Northern Natives *X*

? - *Davis in BC on education*



Thursday, May 13, 2000

12. P.S. Elder, Associate Professor of Law in Environmental Design,
University of Calgary

13. G.C. McCaffrey, President, Steel-Flo Industries Ltd.

14. Calgary Christian Action Committee (Wilma VanderSchaaf)

15. John E. Rymes, President, J.E. Rymes Engineering Ltd. — *

asked to deliver Commemorative Speech -

16. Meena Vadgame, Arusha Cross Cultural Centre

17. Catherine Osborne

18. Douglas E. Allen

19. Chief John Snow, Stoney Tribal Council

20. Wayne E.A. Getty

21. Miss L.P. Turbayne

21 (a) H.A. Buckmaster

*Environment Conservation Branch,
Province of Alberta*

Late Brief Luster
y

Friday, May 14, 1900

22. James D. Aitken, Calgary Branch of the Committee for Independent Canada

23. Lorraine Allison

24. Stan Jones, Canadian Association of Oil Well Drilling Contractors

✓ 25. *H. Gordon Pearce*
A.H. Ross, Vice President, Calgary Chamber of Commerce
- 55,000 people -

26. R.O. Jonasson, General Manager, Dominion Bridge Company, Limited

✓ 27. Gregory M. Mayer, Bishop Grandin High School Biology Class
- short term jobs -
- development by both U.S. & CAN -

28. R.J. Dancer, United Brotherhood of Carpenters and Joiners

29. Carol O. Nickle, President, Conventures Limited

30. E.E. Cudby *P. Eng.*

L. J. Mac
Friday, May 14, 1966 (cont'd)

Ernest ...
31. Claudette Croteau, Canadian University Service Overseas, University of Calgary

Arnav Marine Ltd.
32. Leroy Littlebear, Centre for American Indian Studies, University of Lethbridge

→ 33. H.E. Thiel, Senior Vice President, Foremost International Industries Ltd.
605-272-3522

34. Alan Carter, Committee for Responsibility in Science

35. Dixon Thompson, Faculty of Environmental Design, University of Calgary

36. Stephen Tyler, Southern Support Group

37. Kaz Iwaasa

38. Roy Littlechild for the Chiefs of the Blackfoot and Sarcee Bands

← 39. Rev. R.D. Chisholm, Our Lady of the Assumption Church, Lethbridge

40. Arnav Marine Ltd.

40. CUSO - U. of Calgary

41. Arusha Cross Cultural Centre

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An estimated 100 people attended the Berger Inquiry hearings in Calgary May 13 and 14. Thirty-nine submissions were made, and both Doug Pimlott of CARC and Robert Blair of Foothills Pipe Lines made statements to the Inquiry.

Mayor Rod Sykes of Calgary opened the Inquiry with his personal observation that there was "a general disenchantment in the public mind with inquiries". All Canadians have an interest in northern development--let's get on with the job now, in the interest of all Canadians, he said.

He suggested that "Canadians are the only people on earth who constantly pull themselves up by the roots to see if they are still growing". He further noted that Canada as a nation must survive in the trade world.

He decried the present pitting of one people demanding special rights in the north against all Canadians, and suggested that "shocking disillusionment" awaits the northern natives.

John Poyen of the Canadian Petroleum Association stressed the need to develop our energy supplies in light of predicted energy shortages. We should not, he said, sweep aside northern social and environmental problems, but the situation is critical and "we are all users of energy". On a primary and secondary basis, he said, oil and gas account for 87 per cent of all energy used in Canada. Mr. Poyen stressed that there has been little environmental impact from hydrocarbon transportation in this country; government must establish the environmental guidelines, he said, but the industry can and will co-operate fully.

The Western Canada Chapter of the Sierra Club asked for a moratorium on northern development. The club expressed concern about environmental impact, suggested use of "existing corridors" such as the Fairbanks route (not the Mackenzie Valley); and asked whether there would not be more energy consumed in constructing a pipeline than would be gained from movement of northern gas.

The Energy Committee, Council of Social Affairs for the Roman Catholic Diocese of Calgary, stated that its concern was to promote the welfare of those less well off. The establishment must examine itself, but natives of the north must also examine themselves and both sides must negotiate in good faith. The committee strongly endorsed the process of open dialogue among all parties, and suggested that although there is an immediate need for land claims appraisal, it is unfortunate that native concerns have been clouded in the pipeline issues. These valid aspirations should be disassociated from the urgent pipeline debate and given proper, separate treatment.

Half a dozen submissions were made May 13 by individuals, the Calgary Christian Action Committee and the Arusha Cross Cultural Centre, calling for a moratorium on development. Some suggested that the two functions of the Department of Indian Affairs and Northern Development be split; some referred to the "phoney energy crisis"; and almost all spoke of the historical oppression of native peoples. All supported the concept of land claims settlement before a pipeline. This was also the main message of Chief John Snow of the Stoney Tribal Council.

Doug Brown of Sun Oil spoke of the need for gas in Canada and the deteriorating balance of payments situation.

Bruce Sider, Chairman of the Petroleum Industry Committee on the Employment of Northern Natives, briefly outlined that group's efforts. The committee, formed in 1969, publishes OKURUK and promotes employment of northerners through the industry. Mr. Sider noted that in the 1971-72 work season, 414 northerners were employed in 22 job categories in the north. This has grown steadily until in the 1974-75 season, there were 761 northerners working in 45 job categories. This total, he noted, does not include Nortran employees.

P. S. Elder of the University of Calgary, an associate professor of law in environmental design, stated that moral, universal restraints should not be subject to political realities.

H. A. Buckmaster, a member of an advisory committee to the Alberta Environment Conservation Authority, predicted a much reduced growth in natural gas demand, and suggested that pipeline figures regarding supply and demand were now invalid.

G. C. McCaffrey, President of Steel-Flo Industries Ltd., spoke of the positive impact of a pipeline on small Canadian-owned secondary industries, such as his own.

John Rymes spoke of the ability of Canadian industry to work productively in Canadian Arctic winter conditions. Mr. Justice Berger, at the conclusion of this submission, noted the different claims by Arctic Gas and Foothills about winter productivity, and suggested Mr. Rymes might be asked to testify on this matter in Yellowknife.

Henry Thiel of Foremost International Industries related his company's experience as a business that finds itself mid-way between being environmentalist and industrialist. Mr. Thiel supported the pipeline, saying that Canada's environmental standards are "as stringent and effective as those anywhere in the world today."

W. J. Milne, a Calgary architect, spoke as proponent of the use of dirigible airships to move northern gas. He suggested 70 airships, each with a 70 million cubic foot pay volume, could move the same amount of gas as an Arctic Gas system, at a cost of \$ 4.3 billion, lower tariff and less environmental and social impact.

The first day of hearings in Calgary saw only one regular participant comment; Doug Pimlott of CARC spoke in defence of the concept of public participation and public funding of public interest groups.

The second day of Calgary hearings began with a lengthy brief by Wayne Getty, who related his experiences with and observations of the effects of development on the Stoney Indians.

He was followed by Kaz Iwaasa, who called for a moratorium to "make haste slowly." Gregory Mayer, a high school biology student, then rapped the "phoney energy crisis" and the self-serving oil industry.

The first pro-pipeline submission of the day came from the Calgary Chamber of Commerce, representing 2,700 businesses. The Chamber noted the acute need to develop energy; stated that environmental and social impacts in the north can be minimized; and pointed out that delay in development will curtail northern exploration to the extent that a two-year delay could mean up to eight years delay in start-up of a pipeline, plus escalated costs.

Dr. Gary Donovan, speaking for the local Committee for an Independent Canada, stated that native land claims must be met, and that the CIC is concerned about environmental problems with a Mackenzie Valley pipeline. He expressed his concern that Delta gas will be exported to the U.S., and stated that the CIC is not opposed to development, and is not anti-American. Two other points he made were that capital requirements for Arctic Gas would likely make projects such as Polar Gas impossible for many years since so much capital would be tied up; and major energy use in southern Canada at present is for luxury items, not industry.

R. O. Jonasson of Dominion Bridge supported a pipeline, noted the need for gas and the need to become energy self-reliant as soon as possible (Mr. Justice Berger referred after this submission to the question of whether or not energy forecasts about shortages, coming from the same people who only a few years ago predicted energy abundance, were reliable.) Mr. Jonasson also noted that although the oil and gas industry has promoted secondary industry in Alberta, continued activity is necessary for the economic well-being of all Alberta industry.

E. E. Cudby, appearing as a private citizen, gave a rather lengthy personal submission about how native ownership rights have not been elaborated on to date, and why land claims and the pipeline are indeed two separate issues. He suggested land claims should not be tied to the pipeline as a prior condition, but did agree that historically, there had been "inadequate dealings" with native peoples in Canada, and that a settlement based on land control (not land ownership) should be worked out.

Terry Lusty of the Metis Historical Society; Stephen Tyler and Deanna Grey Eyes of the Southern Support Group; Alan Carter for the Committee for Responsibility in Science; Alan Wolf Leg of the Blackfoot Reserve; Roy Littlechief of the Calgary and Urban Treaty Alliance; and Claudette Crouteau of CUSO all spoke on behalf of the resolution of native land claims prior to any northern development. Generally the native spokesmen also related their own experiences of native neglect and abuse by white society; the non-native submissions also focused on distrust of the multinationals and disbelief in an energy shortage; and Mr. Lusty also made the day's first reference to the potential for violence when he advised the audience to heed the natives for "feelings are running high."

Rev. Glen Wilms discussed the conclusions his church had come up with after a recent energy conference held in Calgary. He noted that it is "no longer pragmatic to try to recapture the primitive". Native people are not opposed to development, he said, but "want a piece of the action". They seemed opposed at present only because they feel left out. Although energy demand must be reduced in Canada in future, the Delta is the first frontier energy area which can be tapped. There is limited potential for establishing an economic base in the north without petroleum development: a pipeline can be built, but land claims must be settled. There must be a search for rational compromise to facilitate both the "significant but temporary" energy solution and the concerns of northerners.

Carl Nickle, President of Conventures Ltd., suggested that the position that no development should occur in the north is as wrong as the opposite view that development with no thought of consequences should occur. He suggested that he hoped a land claims settlement could be reached prior to development, but that the pipeline is urgently needed in the early 1980's and may have to go ahead without a settlement. He stated that there had never been any deception by the industry about Canada's hydrocarbon reserves--there has always been recognition of the



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great potential of Canada's frontier areas, but mere potential does no good to anyone if left in the ground. He stressed the need for Canada to develop its own energy sources, and as a postscript to Chief John Snow's testimony the day before about the Stoney Indian band's experiences with development, Mr. Nickle noted that the Stoney band, government and industry have just concluded an agreement to develop the gas recently found on the Stoney reserve by Pan-Canadian. Under the arrangement, the band will get a greater share of revenues than will Pan-Canadian.

The final submission of the day came from Ed Burnstick and Nelson Small Legs, local members of the American Indian Movement. Both men spoke of past injustices to native peoples, and again warned of the potential for violence if native claims are ignored.

Robert Blair of Foothills then commented on three points he claimed had been raised in the Calgary hearings.

He suggested that industry submissions in Calgary had charged the Inquiry with holding up delivery of northern gas. This was false, he said, adding that there is "substantial time" to hold hearings and make deliberations. He also outlined Foothills' involvement with Northwest Pipeline and suggested that the greater urgency that the U.S. has to tap its northern reserves might be facilitated by the Northwest proposal.

Blair reaffirmed Foothills' willingness to have northern natives participate in Foothills at the managerial level, and he reaffirmed that Foothills is not interested in crashing through the north over the objections of northern residents. There is enough gas in Alberta to meet Canadian markets for a number of years, he stated. And it is Foothills' intention to keep ready and prepared to build a Mackenzie Valley pipeline at such time as the government might decide that such a line is needed.

C-772

THE MACKENZIE VALLEY PIPELINE INQUIRY

Before

COMMISSIONER
MR. JUSTICE THOMAS R. BERGER

Observations of
MAYOR ROD SYKES
CALGARY, CANADA

13 MAY 1976

I propose to take very little of your time, Sir, no more than is necessary to state the personal views of at least one Canadian who has observed the operations of your Commission over a considerable period of time with increasing concern.

Preservation of "Native Culture" and Canadian Nationhood

A great deal has been said of the threat to a "way of life" and the "destruction of a culture", without any clear discussion of the nature of that culture and its value to the Canadian community.

I have some difficulty dealing with the word "culture" because it seems to mean (as in Lewis Carroll's definition) what the speaker wants it to mean, no more, no less.

I have no difficulty at all in dealing with the facts of life in the North, however. Many, if not most, of the people for whom concern is expressed lead a relatively primitive life of insecurity and hardship. Few, knowing a better life, would wish what they have on their children, I believe, for when the romance and the rhetoric are stripped from the case what remains is what no one wants who has a choice - simply survival below the poverty line or, at best, existence on a government welfare programme.

Setting the question of "culture" aside, let me say clearly that all Canadians have an equal and undivided interest in all Canada, including the North and its resources. Even if it were decided that a primitive style of life should be preserved artificially for the benefit of a fortunate few, that progress and the natural evolution of life through individual choice should not be allowed to take place - what would be the result?

Would government propose to set aside a "nature reserve" for some Canadians to live in, so that they might enjoy the proven benefits of our Indian Reserve System? Or would we sterilize all the resources of the North so as to suspend economic evolution, and thereby harness the rest of Canada in energy terms to the pace of a square stone wheel? Neither course seems practical.

Without pursuing these interesting speculations further, let me say, as someone else already has, that Canadians seem to be the only people on Earth who are constantly pulling themselves up by the roots to see if they are still growing.

I believe that Canada is one nation, a nation of immigrants, and I believe that all are equal in all their rights no matter what the date on the ticket may be. The fact that some claim to have been here longer than others means nothing in our concept of nationhood. The fact that some cannot even produce a ticket does not mean that God meant them to be first, any more than it means that they are illegal immigrants.

We are all the same, all one class of Canadians, none with more rights than another and certainly none with a valid claim to destroy Canada by carving off bits and pieces of territory here and there - or even to settle such claims for cash on a blackmail basis.

I am amazed that Canadians have tolerated so far, and even financed, the talk about land claims and compensation claims by people who would, in many cases, rather talk than work. I think, however, that many Canadians have had enough of this nonsense and are not prepared to tolerate much more.

Let me state again that there cannot be

- special political rights and privileges for some over the interests of all Canadians
- special territorial "gifts" or cash in lieu, for some at the expense of all Canadians.

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I believe we have had enough of the politics of blackmail, and intimidation through threats of terrorism and violence on the part of domestic and imported troublemakers, and we expect Government to deal decisively with this intolerable situation.

The Energy "Crisis"

We have suffered enough in the past five years to know that we live in a small, interdependent world; that we survive by trade in an international market economy; that we are often at a competitive cost disadvantage in trading with the world; and that we must exploit our resources, our few advantages, both aggressively and intelligently if we are to survive.

These are the energy imperatives of our world. All Canadians, and Canada as we know it, depend on our managing our national business efficiently. The time we have lost already in developing resources and bringing them to market has cost Canada and Canadians more than we can ever compute. Every day's delay costs more and jeopardizes our future and that of our children. The cost of delay is far more damaging to Canada and Canadians than any of the concerns of technology and construction or, indeed, any of the other factors being considered by your Commission.

Let's get on with the job, build the line, and build it now. We can't afford more waste and more delay. The interests of Canada as a trading nation in a competitive world must be paramount, because the interests are related directly to the economic survival of all Canadians.

The Process of Consultation and Citizen Participation

The approach taken, essentially a political approach, is theoretically rather attractive. In practice, I think it will be disastrous.

Let me comment on this rather unwelcome conclusion by saying, first, that I believe the process itself will be significantly discredited by the results and, secondly, that the good faith and objectivity of the people concerned in this particular exercise is certain to be attacked by political opportunists and other assorted troublemakers. I do not, by the way, question the integrity and the good faith of the Commission. I am merely stating what I believe will be emotional conclusions that will follow the ultimate realization that the line will be built because it must be and all that is in question is route, timing and terms.

My prediction certainly represents a harsh judgment, but it is a judgment based on a good deal of experience with the process loosely called citizen participation.

I believe that consultation in the real sense of the word implies an evaluation of fact and informed opinion, and the drawing of conclusions on what is essentially a rational basis. It is not, emphatically not, either a pooling of ignorance or a process of intimidation and yet that is what it has become in practice - a pooling of ignorance and a process of intimidation.

The Commission has provided a platform for troublemakers, domestic and imported, attacking the territorial unity of Canada, threatening the energy resource supplies of all Canadians, and setting up claims that some Canadians have more rights than other Canadians. In the name of freedom of speech, and the right to be heard, people whose fundamental interest is self-interest rather than national interest have exploited the process. In so doing, they have discredited it, to some extent, in the minds of many silent Canadians. This is regrettable, but it is by no means my most serious concern.

I believe that the process of consultation has been used, consciously by some and unconsciously by others, to

- exploit the fears and the concerns of simple people whose fears derive in the main from their ignorance;
- set up an implied threat of violence and acts of sabotage if payment in land or money or both is not made by all Canadians to a few;
- destroy public confidence in the ability of engineering and scientific technology to cope with construction and operating conditions in the North;
- undermine public confidence in the good faith and integrity of private enterprise, in a country which depends on private enterprise for survival;
- create distrust of the principle of consultation itself.

The fact is that simple, unsophisticated people think that "consultation" means that they will be listened to and that their views will have some identifiable effect on decisions - even if they have little of rational value to say. This is not necessarily so. It should not be so.

They think, too, that sheer emotion, sheer numbers, the head-count system can not only substitute for fact and reason but also conquer fact and reason. They deceive themselves, but they are none the less bitter later on, and they can be relied on to claim that they were deceived.

The truth is that an innocent belief in the effectiveness of applied ignorance, backed by emotional propaganda, threats, and even by numbers cannot prevail in the real world of national interest and competitive survival. The inevitable result is shocking disillusionment, and great bitterness - which will be exploited by our political troublemakers, domestic and imported.

The Commissioner has shown a truly remarkable degree of patience, and has carried out a challenging assignment with thoughtful courtesy. His patience and courtesy will make the ultimate disillusionment so much the more devastating.

The imperatives of energy demand in a competitive world, in an international market economy, in which Canada works and trades to live dictate that the paramount interest of all Canadians must govern. That interest is self-evident, and I believe that the decision has been made for us already as a matter of competitive survival by forces beyond our control.

We must develop our energy resources, and we must deliver them to market.. We should not have delayed so far, and we cannot afford further delay. It is time we stopped talking and started working.

I believe the Government was sincere when it set up the Commission. I believe in the integrity of the Commissioner. I respect his patience. I believe, also, that a disastrous and costly mistake was made in terms of national unity and Canadian nationhood when the Commission was set up. Well-meant as the idea may have been, what we have for our money is the pitting of one group of Canadians demanding special rights against the interests of all Canadians; the encouragement of territorial and financial claims that could destroy our country; enormous damage to the economic interests of all Canadians; and the imposition of a heavy burden for the future on the backs of those Canadians who work and save and stand on their own feet.

I repeat, Sir, that it is time to recognize that there is only one kind of Canadian in this nation of immigrants, to stop talking and to get to work.

MAYOR ROD SYKES

C. 237

SUBMISSION
BY THE
CANADIAN PETROLEUM ASSOCIATION

TO THE

MACKENZIE VALLEY PIPELINE INQUIRY

CALGARY, ALBERTA

MAY 13, 1976

INTRODUCTION

Thank you, Mr. Commissioner, for the opportunity of appearing before you on the occasion of your visit to Calgary, and to express the views of the Canadian Petroleum Association as it relates to the Mackenzie Valley Pipeline Inquiry.

If I could first introduce myself, and then briefly describe the Association, on whose behalf this submission is being introduced and read.

My name is John S. Poyen. I am a Canadian Citizen, and have devoted my career, since discharge from the military after World War II, in the drilling, exploration, development, production and pipelining functions of the oil and gas industry in Canada.

I have resided in Calgary for the past 28 years - with brief, temporary assignments in Edmonton and Toronto. My personal experiences in the North, basically the Mackenzie River Valley, the Mackenzie Delta, and the Tuktoyaktuk Peninsula, date back to the middle 50's - at the time the town of Inuvik was established by the Federal Government.

The Canadian Petroleum Association is a non-profit trade organization numbering within its membership of 180, 85 companies actively engaged in the exploration, production and pipeline/transportation functions of the oil and natural gas industry in Canada. Our membership of large internationally integrated, medium and small Canadian companies, represents 85% of total Canadian production and 75% of total investment dollars in the exploration, production and transportation facets of the industry. Together with 95 Associate Member Companies engaged in services and other ancillary businesses, the Canadian Petroleum Association represents the majority of petroleum interests in the Canadian North.

The Canadian Petroleum Association encompasses 40 committees involving over 1,200 industry personnel, that have and continue to provide the expertise necessary to assist in the orderly and efficient exploration and development activities of the oil and gas industry in Canada.

With exploration dating back to the 1920's, members of the CPA have a history of closely working with all governments and regulatory bodies, in an effort to ensure that sound and practical regulations are implemented and enforced, Conservation and Environmental Protection being among the basic considerations.

As I mentioned a moment ago, the members of the Canadian Petroleum Association are in the business of finding, producing and transporting Canadian hydrocarbon reserves. Our members have delineated reserves of oil and gas on Federal lands and continue in their search for additional supplies. We are concerned that there is insufficient public appreciation of the urgency of stimulating exploration and development of a transportation system which will assure the delivery of these reserves to the Canadian public by early in the next decade, when they will be needed to meet our energy demands. It is this point, Mr. Commissioner, that underlies all my remarks.

In the thousands of pages of testimony already presented to you, most of the pertinent aspects of the construction and operation of a Mackenzie Valley pipeline, from a regional standpoint, have been discussed. Consequently, we have endeavoured to be brief while still stating the position of the Association on at least those areas which we feel are of special importance.

SUPPLY-DEMAND TIMING

We feel there is no need to go into detail with respect to the projected supply-demand situation for Canadian oil and gas. The National Energy Board's projection which shows that Canada will need additional gas supplies on-stream by the early

1980's, supports the Association's own projection. It is probable that among the major proved gas reserves so far located in the North, the Mackenzie Delta reserves have the earliest prospect of being developed and transported to Canadian markets. Also, it is the opinion of the Canadian Petroleum Association that significant additional Delta reserves will be discovered in the next 5 or 6 years -- if there is a gas transportation system under construction as presently scheduled. However, if the explorer cannot perceive the probability of a pipeline system to move his hydrocarbon reserves to market, it will become increasingly difficult to justify the continuation of multi-million dollar exploration and development investment^{or} in providing the reserves base for pipeline financing.

It should be recognized, Mr. Commissioner, that petroleum activities cannot be quickly switched on and off. They can be halted very quickly, but it takes much longer to regain previous levels of activity. This is particularly so in the Delta, where exploration operations are seasonally restricted; where construction planning must take into account the remoteness from major supply and distribution centres, environmental factors, available water transportation, additional stock-piling, and retention of experienced work forces familiar with the

requirements of working in the Arctic environment. A few years' delay in the start of pipeline construction could result in a total project which could dramatically escalate the time frame of resource availability. We ask this Inquiry, in its preparation of recommendation respecting terms and conditions of construction of a Mackenzie Valley pipeline, to consider the impact on all Canadians, if such terms and conditions ^{would} result in a delay in the present schedule of making Delta gas available to Canadians by the early 1980's.

At this point, we would like to make a brief observation about native claims -- specifically, about the resolution of these claims as it may effect the timing of the start and construction of a pipeline.

The Canadian Petroleum Association believes that the land claims issue is a matter between the natives and the federal government. If pipeline approval were to be delayed because of the claims settlement issue, or for any other reason, development of Delta reserves would be ^{very likely} delayed with consequent adverse effect on all Canadians.

ENVIRONMENTAL IMPACT

The oil and gas industry has conducted extensive and continual exploration and production programs in western Canada since the

late 1940's. Today we are producing and transporting over 1.7 million barrels per day of crude oil and liquids, and 6.2 billion cubic feet per day of natural gas -- to say nothing of LPG's and sulphur. Yet there is little noticeable environmental impact of our operations. In fact, while producing and transporting over 85% of Canada's total energy requirements the oil and gas industry creates relatively minor environmental dislocation.

This is due in a large degree to the fact that our concerns for environmental protection go beyond the basic observance of government regulations or meeting specified standards. Our individual members, and this Association have worked closely with governments to create and improve regulations to protect air, water and land.

We believe this concerned industry attitude will continue with respect to the North, because our industry sincerely wishes to avoid environmental damage. We think the Delta Environmental Protection Unit is evidence of this. This is a cooperative effort by industry, voluntarily formed, with jointly-owned, air-transportable equipment specifically designed for that area.

Also, our members, individually and collectively, have carried out biological studies and annual environmental reviews of areas

of operations in the Delta. Our industry has accelerated the accumulation of Arctic environmental data, both by its own studies, and by direct financial and logistic support to federal government programs and the academic community. An important result of such studies and of the experience gained from the considerable exploration activities conducted to date in the North, is the development of environmentally safe and acceptable operating methods.

The position taken by this Association is that reasonable but sound environmental regulations are in the interest of all Canadians. Although the government must establish such regulations, our industry will continue to cooperate, by making available our considerable expertise in many areas of environmental protection. There is always some cost to development. But our industry has demonstrated that it can and will operate with care and concern. If there are sound environmental regulations which will still enable exploration and development operations, then the development of Arctic reserves can be carried out with minimum risk.

SOCIAL IMPACT

Our Association is aware that concerns have been expressed by many groups and individuals about the perceived social impact that will result from pipeline and related development activities.

There is no doubt that there will be social impact in many ways: the increased cash income will have an effect on the social relationship within the family and between the family and the community. But we do not believe we can speak for the natives in terms of what is best for them. We can only observe what has happened so far and what has been the response of the native toward social changes introduced into their society.

Social changes have been introduced to areas of the North since the mid-nineteenth century. We see that the natives have not totally rejected these changes, although we realize that in some instances they had little choice. But just as the natives saw the advantages of the gun, the steel trap and the metal fish-hook for the provision of food and furs, more recently they accepted radio as a means of communication and information, and now television as a means of entertainment.

We feel that social impact of the construction and development activities will be mainly a function of the degree to which the natives participate in employment opportunities, and business ventures associated with this new economic development. And we feel, Mr. Commissioner, that both the employment and the effects of that employment and business activities should be the choice of the native.

Northerners have demonstrated an interest in participating in a salary-wage-business economy, and to acquire the goods and services that are made available through increased purchasing power. Greater involvement in this modern economy will accelerate to some degree the changing life style of the northern native -- we say changing because traditional living-off-the-land life style has undergone and is undergoing continuing change. If the Inuit, Indian or Metis wish to increase their capabilities to make use of products to assist them in their work or soften the harshness of their lives, they can do this only with development of the North. The pipeline is a gateway to development.

There are, however, two specific areas of possible significant social impact that we would like to mention.

The first is the impact on the communities along the proposed pipeline route, and in the Delta. There will be disruption of community life if no preventative measures are taken. It is our understanding, however, that the pipeline companies and producers are prepared to cooperate with the community councils and the territorial government toward minimizing perceived problems. Nevertheless, some degree of disruption is unavoidable -- regardless of when the pipeline and producing facilities are constructed.

It seems essential to us that there must be provision for Northerners who are working in oil and gas construction and development activities to ensure their options of the choice between the traditional close relationships with family and community and their involvement in the new order. ^{is maintained} We realize that there are practical limits to provision of transportation to and from work points -- limits that will have to be determined by distance and numbers to be transported. But if agreement can be reached on a number of northern communities as labour supply points, and transportation is provided between work points and these communities, job opportunities will be within reach of more Northerners, while dislocation of workers and families will be minimized.

ECONOMIC IMPACT

Regional economic impact will be experienced in two ways: by increased cash to communities; through wages and other industry related entrepreneurial opportunities; and through the overall benefits that all Canadians will share if we regain oil and gas self-sufficiency, or at least self-reliance.

Regional job opportunities and business opportunities will be created in both the construction and operation phases of the pipeline and related development activities. This is a recognition

on our part of an obligation to provide regional opportunities of direct individual participation in the work activities.

Conversely, Northerners have a right to expect that employment opportunities will be made available to them, along with opportunities and assistance to train for the skilled and semi-skilled jobs. If a northern resident chooses to take advantage of these opportunities, we are confident that the unions will cooperate. The industry now is training natives for employment in Northern operations, and the program is characterized by a large degree of flexibility on the part of the employers and the northern trainees. This flexibility should not be jeopardized, if the program is to succeed.

Secondly, we said that Northerners will share with all Canadians the overall benefits of hydrocarbon self-sufficiency, or self-reliance. For the same reasons, however, that all Canadians benefit from a healthy economy, geographic regions cannot be insulated from the effects of a general economic set back which ^{could} will result from increasing reliance on crude oil imports to off set indigeneous oil and gas deficiencies. I am referring to the effect on balance of trade payments; the international value of our dollar; the loss of competitive position in export markets; increased unemployment; and the constant threat of embargoes.

This need not happen. Unlike most industrialized nations, Canada is fortunate to have the option of developing its own hydrocarbon reserves to maintain security of supply and economic and social benefits to all Canadians.

CONCLUSION

In conclusion, Mr. Commissioner, we return to our opening remarks about the urgency of developing Delta reserves. If we can accept the National Energy Board's forecasts of early shortages of domestic oil and gas, surely we can see the logic of developing the most quickly available source of hydrocarbon reserves.

The Canadian Petroleum Association does not believe that because the situation is urgent, regional problems related to social, economic and environmental impact of a Mackenzie Valley pipeline and related facilities should be swept aside. But we do feel that the situation is sufficiently critical to remind every Canadian -- whether he or she is in favour of or is opposed to northern hydrocarbon development -- that we all are users of energy, 87% of which in Canada comes from crude oil and natural gas. We believe that all interested parties must attempt to strike a ^{bargain} balance between the hopes and aspirations of the people of the North and the national best interests

of Canada. We urge that the recommendations of this Inquiry, with respect to the terms and conditions of pipeline approval, similarly will recognize northern rights and concerns without causing delay to Delta development as now scheduled.



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H. E. THIEL
Senior Vice President
Director — Marketing

PRESENTATION TO THE MACKENZIE VALLEY PIPELINE INQUIRY

BY

FOREMOST INTERNATIONAL INDUSTRIES LTD.

On behalf of Foremost International Industries Ltd. I would like to express appreciation for the opportunity to make this presentation.

Foremost is a Canadian organization with head offices and manufacturing facilities in Calgary. The Company designs and builds specialized, marginal-terrain transportation equipment which is marketed on a world-wide basis.

Our Industry's origin dates back to the early 1950's when the petroleum industry in Western Canada found itself without suitable equipment to traverse the difficult muskeg regions of Western and Northern Canada. In the ensuing years the Industry has developed a unique Canadian expertise in sophisticated, difficult terrain transportation equipment.

One would have to acknowledge that in the early days the objective was simply to penetrate these regions and allow exploration and production activities to be carried on. However, as we moved into areas where delicate terrain existed, our challenge shifted to one of providing vehicles offering economical access without creating ecological disturbances of a permanent nature. In effect companies like Foremost were required to respond to two

influences: - the demands of the environmentalist who imposed severe restrictions on the aggressiveness of vehicle-terrain interfaces and that of the operating managers who had to show practical results while meeting those environmental restraints. As a result our industry developed transportation equipment that even while fully loaded exerts less ground bearing pressure than that of an average size man walking over the same terrain.

As the benefits of this equipment became more widely known our company found itself involved in numerous areas and countries with a broad cross-section of terrain conditions. This allowed us to become acquainted with environmental considerations and associated land use regulations in such jurisdictions as the Northwest Territories, the Yukon, the Arctic Islands, Alaska, Soviet Siberia, Indonesia and the Middle East. In many of these regions our equipment has been utilized in construction projects similar to that proposed for the Mackenzie Valley Pipeline.

This exposure to resource development activities on a world-wide basis has given us an opportunity to view developments in Canada from a somewhat different perspective than many other firms and individuals. We have been exposed to a variety of methods, attitudes, regulations (or a lack thereof), and have seen the effects of large development projects on the economy and the quality of life. This experience has reinforced our conviction that properly regulated development is desirable and beneficial and Canada is a land that offers a tremendous future provided we take advantage of the opportunities. It is this conviction that

has prompted us to make this submission today. We hope that the members of the Inquiry will find it useful.

There appears to be no question as to the need and to the economic necessity of developing our petroleum reserves in Canada's North and bringing them to market. Much has been said about this by our National Energy Board and various other government and industry spokesmen and we would simply add our support.

We do recognize that resource development and the struggle to maintain our high standard of living must not be undertaken without due regard for the quality of life, the protection of our beautiful landscape and the social requirements of the various peoples who make up the Canadian identity. Fortunately, Canada has established, in our estimation, an early recognition of the need to introduce protective rules and regulations to control the manner in which delicate regions are developed. We've had an opportunity to compare the safeguards now in effect in Canada with those that exist elsewhere and, we respectfully submit, that based on our observations these safeguards are as stringent and effective as those anywhere in the world. We feel certain that any project which is carried out in keeping with these safeguards will not adversely affect the ecology, the environment or the regional interests of its population on any prolonged basis.

If I may, I would like to add some personal experiences with respect to petroleum development and pipeline construction in Canada. I was born

and raised in the small town of Millet in central Alberta some twelve miles from the original Leduc discovery well. I witnessed the early geo-physical exploration activity, the boom days immediately after the discovery, the construction of gathering lines and pipeline systems in that beautiful central Alberta landscape. There is no question that there was some concern amongst residents in the community regarding the intrusion of the temporary residents. The infra structure was taxed to its maximum extent, new trails and roads were cut through existing farm fields, pipeline ditches were dug and tank farms were interspersed through the countryside. But both the people in the community and the countryside exhibited a resiliency and flexibility which one could not have originally anticipated. Today an examination of the area would show that neither the people nor the environment suffered from the experience; there are no scars visible but there is the visible sign of ~~fatter wallets, nicer homes and~~ a better standard of living. And the development brought to the area new opportunities for many young Canadians.

Certainly we recognize that the development project in central Alberta cannot be compared equally with the development of the remote and sensitive Mackenzie Valley area. There are differences in the peoples involved and certainly there are differences from an ecological point of view. But it does seem to us that there is a somewhat exaggerated concern about the ability of the environment and the people to cope with the projected exposure to construction and development. The technology and the legislative controls are available to ensure that

such activity is carried out with a minimum of disturbance.

Many of us have reviewed the films depicting the early mistakes made in Canada's North by those conducting exploration programs - litter spread helter skelter, crawler tracks on the tundra and gouges where the delicate surface cover of perma-frost was scraped away. These films date back many years but are still shown to the unsuspecting public as though such practices were still tolerated today. Members of this Inquiry know that this is not the case nor has it been for sometime. Those responsible for land use regulations have insured that such past practices are not countenanced today. And although the costs have been enormous and the resulting delays disillusioning, those involved have responded well and now techniques, systems, and equipment have been developed to meet even the most onerous regulations.

It is our understanding that in the delicate tundra areas of the proposed pipeline route, it is intended to work only in winter on snow roads with equipment suitable to such temporary transportation arteries. We would like to advise the Inquiry that our equipment has been utilized on such snow roads and the system has been employed successfully for many seasons in Canada's North without any visible damage.

We feel similarly regarding the concerns expressed for our wildlife. Extensive studies were undertaken for the Trans-Alaskan Pipeline Project and onerous safeguards were involved to insure that not even an eagle's

nest would be disturbed in carrying out the project activity. These studies and results would indicate that the effect on our animals, birds and fish will be of a temporary nature and well within their adaptive capabilities.

Although we are not expert with respect to the social implications for our native peoples, my own experiences as the Personnel Manager for a major petroleum company in this city during the early phases of activity in the northern regions convinces me that probably no other industry has shown the same willingness to employ, educate and live in harmony with our native peoples. I can recall being involved in a program, which took place nearly ten years ago, during which I personally visited native settlements and native schools in the North for the purpose of determining the best means for employing local native help on a permanent basis in the area. The expense was substantial and it involved flights by fixed wing aircraft and by helicopter to remote areas in order to conduct interviews with missionaries, educators and native leaders. Although the employment of natives required a radical revision of standard supervisory and personnel practices by the company, the results were beneficial to both the native community and to the employer.

I can also recall being a member of a committee within the Canadian Petroleum Association whose purpose was to develop concrete plans for native education, training, placement and social rehabilitation in preparation for the industry's move into Canada's North. The most impressive

aspect of the Committee was the priority given to it by the Corporations even at that early juncture. It was a group composed primarily of senior corporate executives and, in fact, the Chairman of the Committee was the Chief Executive Officer in Calgary for the largest petroleum company in Canada.

In summary we would like to go on record as supporting the following action by the Inquiry: -

To recommend that a permit be issued for the construction of the Mackenzie Valley Pipeline at the earliest possible date with construction subject to reasonable rules for the protection of the legitimate interests of the native people and the safeguarding of Canada's ecology and environment.

We believe that such a recommendation will be in the best interests of Canada and its citizens.

A handwritten signature in dark ink, appearing to read "H. E. Thiel", with a long horizontal line extending to the left.

H. E. Thiel

Senior Vice-President



Steel-Flo Industries Ltd

May 13, 1976

STEEL-FLO BRIEF
TO THE
MACKENZIE VALLEY PIPELINE ENQUIRY

The objective of this brief is to demonstrate the economic and sociological growth possibilities in secondary manufacturing industries in Alberta if a Mackenzie Valley pipeline is built.

In Alberta, we have a parallel situation to the natives of the North in that we have a drastic need to improve the social and economic status of our peoples, Indian and white alike, who find themselves in depressed areas of the province. The government of Alberta has deplored the situation where the major industrial areas of the Province are experiencing a labour shortage while the have-not small towns remain in their stagnant state. In fact, the government is actively seeking ways to spread the work force into these areas, particularly in the field of secondary manufacturing, in order to provide the industrial base that will be needed to sustain the growth of the province after the oil and gas natural resources are depleted.

The rational way to establish a solid secondary industrial growth pattern is to tie-in with the key developments in the oil and gas industry. Our company, Steel-Flo Industries Ltd. of Turner Valley, provides a classic study of the possibilities in secondary manufacturing for Alberta firms.

In a pipeline fitting industry, dominated by large U.S. controlled conglomerates who can afford to wait until Canadian natural resource development catches up to their long range plans, a small independent company is at a distinct disadvantage in Canada.

Steel-Flo Industries Ltd. was started in 1973 by a small group of private businessmen dedicated to providing a Canadian controlled manufacturing alternative in the piping field. The product chosen was large diameter pipe fittings, that is, tees, used in oil and gas transmission lines. The group brought with it independent financing, manufacturing expertise and a detailed knowledge of the Canadian market.

The company set up its facility at Turner Valley, about 35 miles south west of Calgary, in an old building abandoned for years. It was the first major industry to move into the area since a gas plant was built there in the late 1920's.

Steel-Flo recruited its work force from the local unemployed and trained them on the job with the assistance of the Canada Manpower training program. The work force grew steadily to a maximum of 43.

Canadian steel plate is used as the base material. The company refined a unique cold extrusion process, heretofore used by only one other company in the world, to produce pipeline tees and headers up to 48" in diameter. Shortly after start-up, the company had to face the virtual loss of the Canadian market for its products, due to the doldrums affecting the domestic oil and gas transmission companies. To counteract this, the company sought out the export markets with the help of the Federal Department of Industry, Trade and Commerce and the Alberta Department of Business Development and Tourism.

Steel-Flo was successful in competing against the large European and U.S. firms and exported its products to the U.K., Norway, France, Australia and New Zealand. Lately, the company has succeeded in breaking into the toughest market of all, the United States.

This export business was accomplished in the face of unfair transportation costs to western manufacturers and in many cases high tariffs in the country of import. Although the Canadian market for Steel-Flo products had shrunk to about 15% of previous annual purchases, the company was supported by Canadian oil and gas transmission companies who went out of their way to encourage the new Canadian source by purchasing its products whenever possible.

Steel-Flo also conducted specialized Canadian research in the piping field in order to be in a position to supply its components to an eventual Artic pipeline. This research was again funded by the company without outside help.

Recently, the company has had greater difficulty on the export market due to the depressed conditions of the industry in Europe. The work force has been reduced to 12 and the struggle to survive is very real. Only through the singular help of the Alberta Opportunity Company and the generous non-bank financing received from other quarters has the company been able to survive in this period. Obtaining risk capital at the early stages of development for a small company in this country is a horror story in itself. Large profitable Canadian banks are the last to lend funds for the early development of secondary industry by the small businessman.

The employment opportunity in the event of a MacKenzie Valley pipeline, would see our fledgling industry grow from its present state to 300-400 workers directly employed by Steel-Flo in a few years. This would have a tremendous social and economic impact on Turner Valley and other small communities where satellite plants would be built. In addition, this Canadian growth pattern would provide the prestige for the company to properly compete in the United States and the large markets of the Middle East and Russia.

It also goes without saying that the increased use of Canadian steel to serve these markets would benefit workers in other parts of Canada.

We at Steel-Flo are confident of survival as a Canadian owned manufacturer but we will not be able to compete effectively on the world market without a major Canadian gas transmission project to provide the base. While not endorsing either major applicant to build the line we definitely support the concept of a gas pipeline down the Mackenzie. It is a logical approach for Steel-Flo and other Canadian owned and controlled firms to achieve their industrial goals in Canada.

MACKENZIE VALLEY PIPELINE INQUIRY

A BRIEF

PRESENTED BY

J. E. RYMES ENGINEERING LTD.

MAY, 1976

CALGARY, ALBERTA

GENTLEMEN:

ON BEHALF OF MY COMPANY, I WOULD LIKE TO EXPRESS OUR SINCERE THANKS FOR THE OPPORTUNITY OF APPEARING AT THE PIPELINE INQUIRY HERE IN CALGARY.

FIRST OF ALL, IT WOULD SEEM APPROPRIATE TO INTRODUCE BOTH MY COMPANY AND MYSELF TO YOU SO THAT YOU MAY APPRECIATE OUR INTEREST IN ARCTIC AFFAIRS.

OUR CONSULTING ENGINEERING COMPANY WAS INCORPORATED ON JANUARY 1, 1967 TO ENGAGE IN A CONSULTING PRACTICE IN MECHANICAL ENGINEERING SPECIFICALLY DEALING WITH TRANSPORTATION AND EQUIPMENT FOR BOTH OFF-HIGHWAY AND ON-HIGHWAY APPLICATIONS WITH PARTICULAR EMPHASIS ON ARCTIC OPERATIONS. IN ADDITION, MECHANICAL AND MACHINE DESIGNS, INDUSTRIAL ENGINEERING AND SPECIALIZED PATENT ACTIVITIES ALSO FORM PART OF OUR SPECIALIZED MECHANICAL ENGINEERING CONSULTING PRACTICE. THE COMPANY IS REGISTERED AS A CONSULTING ENGINEERING COMPANY IN ALBERTA UNDER PERMIT NO. 354.

I AM THE PRESIDENT OF THE COMPANY AND HAVE AN EXTENSIVE ENGINEERING BACKGROUND IN BOTH HEAVY EQUIPMENT AND INDUSTRIAL MATTERS. BEGINNING AS A DESIGN ENGINEER



WITH CANADIAN CAR AND FOUNDRY IN FT. WILLIAM IN 1951, I HAVE SINCE THAT TIME BEEN ACTIVELY ASSOCIATED WITH ENGINEERING, RESEARCH AND DEVELOPMENT IN THE HEAVY EQUIPMENT AND INDUSTRIAL FIELDS. WITH THE FORMATION OF THE CONSULTING COMPANY IN JANUARY OF 1967, WE HAVE CONTINUED OUR ACTIVITIES IN THESE RELATED FIELDS.

MY PROFESSIONAL AFFILIATIONS INCLUDE THE FOLLOWING:

A MEMBER - ASSOCIATION OF PROFESSIONAL ENGINEERS, GEOLOGISTS AND
GEOPHYSICISTS OF ALBERTA

A MEMBER - ASSOCIATION OF PROFESSIONAL ENGINEERS OF ONTARIO

A MEMBER - ASSOCIATION OF PROFESSIONAL ENGINEERS OF BRITISH COLUMBIA

A MEMBER - SOCIETY OF AUTOMOTIVE ENGINEERS AND HAVE ALSO BEEN THE
CHAIRMAN OF SAE FOR ALBERTA DURING 1968-69 AND AGAIN
IN 1973-74.

A MEMBER - CANADIAN URBAN TRANSIT ASSOCIATION

A MEMBER - ENGINEERING INSTITUTE OF CANADA

A MEMBER - CANADIAN SOCIETY OF MECHANICAL ENGINEERS

A MEMBER - AMERICAN FOUNDRYMEN'S SOCIETY

A MEMBER - AMERICAN METALS SOCIETY

I AM ALSO A MEMBER OF THE INTERNATIONAL SOCIETY FOR TERRAIN VEHICLE SYSTEMS AND ALSO A MEMBER AND PRESIDENT OF THE CANADIAN SOCIETY FOR TERRAIN VEHICLE SYSTEMS. I AM A MEMBER OF THE ADVISORY COMMITTEE FOR MILITARY LAND TRANSPORTATION AND VEHICLE ENGINEERING - DEPARTMENT OF NATIONAL DEFENCE IN CANADA.

IN ADDITION TO THESE PROFESSIONAL AFFILIATIONS, I AM A MEMBER OF THE ALUMNI OF THE BANFF SCHOOL OF ADVANCED MANAGEMENT AND PAST PRESIDENT OF THE ROTARY CLUB

-3-

OF WEST CALGARY. WITH THESE PROFESSIONAL AND PERSONAL CREDENTIALS, I FEEL THAT I AM WELL QUALIFIED TO SPEAK ON ENGINEERING MATTERS PARTICULARLY AS THEY PERTAIN TO ARCTIC OPERATIONS WHERE CONSTRUCTION AND MOBILE EQUIPMENT ARE EMPLOYED.

HAVING REVIEWED BOTH MY COMPANY AND PERSONAL BACKGROUNDS, I WANT TO NOW STATE SPECIFICALLY WHY I REQUESTED THE OPPORTUNITY TO PRESENT MY BRIEF TO THE INQUIRY BOARD. ON APRIL 8TH, 1976, THERE APPEARED AN ARTICLE IN THE CALGARY HERALD THAT INDICATED ALL ARCTIC WORK WOULD CEASE FOR A PERIOD OF AT LEAST TWO MONTHS BECAUSE OF THE SEVERE ARCTIC WINTERS. THE EVIDENCE I WANT TO PRESENT TO YOU TODAY WILL SIMPLY REFUTE THAT STATEMENT BOTH BY EXAMPLE AND BY PERSONAL ACTIVITIES. FURTHERMORE, WHEN I HAVE COMPLETED MY PRESENTATION, I AM CONVINCED THAT THE BOARD WILL APPRECIATE AND UNDERSTAND THAT WINTER WORK IN NORTHERN CANADA AND IN THE CANADIAN ARCTIC NOT ONLY TAKES PLACE CONSISTENTLY AND CONTINUALLY BUT HAS TAKEN PLACE FOR MANY YEARS.

FROM AN ENGINEERING AND OPERATIONAL POINT OF VIEW, ALL OF THE COUNTRIES OF THE WORLD RECOGNIZE CANADA AS A WINTER OR AN ARCTIC ORIENTED COUNTRY AND AS SUCH, CANADIAN EXPERTISE UNDER THESE ADVERSE CLIMATIC CONDITIONS IS WELL RECOGNIZED. IN ORDER TO PROVIDE THE BOARD WITH SOME APPRECIATION OF THE TYPES AND KINDS OF WORK THAT HAVE BEEN UNDERTAKEN IN CANADA OVER A NUMBER OF YEARS, I WOULD LIKE TO LIST THE FOLLOWING EXAMPLES:

THE DESIGN, THE CONSTRUCTION AND INDEED THE OPERATION OF FT. CHURCHILL ON THE SHORES OF HUDSON BAY NEAR THE TOWN OF CHURCHILL, MANITOBA WAS A RESULT OF BOTH WINTER AND SUMMER ACTIVITIES. IN THE LATE 1940'S, I HAD THE OPPORTUNITY



TO WORK AS PART OF THE CONSTRUCTION CREW IN BUILDING FT. CHURCHILL.

ANOTHER EXAMPLE OF WINTER WORK PROJECTS UNDER SEVERE CLIMATIC CONDITIONS IS THE DEVELOPMENT OF THE IRON MINES IN NORTHERN QUEBEC; THIS SIGNIFICANT NORTHERN OPERATION IS NOT ONLY WELL KNOWN THROUGHOUT CANADA BUT IS ALSO AN EXAMPLE OF THE CANADIAN EXPERTISE IN THE REST OF THE WORLD.

THE HYDRO ELECTRIC DEVELOPMENT AT CHURCHILL FALLS AGAIN IN NORTHERN QUEBEC, IS ANOTHER EXAMPLE OF CANADIAN EXPERTISE IN WINTER DESIGN, CONSTRUCTION AND OPERATION.

TURNING FURTHER NORTH INTO THE ARCTIC, COMINCO, ONE OF CANADA'S LARGEST MINING COMPANIES HAS AT THIS VERY MOMENT UNDER ACTIVE ARCTIC OPERATIONS A MINE SITUATED ON LITTLE CORNWALLIS ISLAND. THE LOCATION OF THIS MINE WOULD BE AT APPROXIMATELY THE SAME LATITUDE AS THE RECENT DISCOVERIES BY PAN ARCTIC AT DRAKE POINT ON MELVILLE ISLAND. THESE LATITUDES WOULD BE APPROXIMATELY 75° NORTH.

SPEAKING OF THE ACTIVITIES OF PAN ARCTIC OILS LIMITED, THIS COMPANY HAS PIONEERED AND HAS INDEED DEVELOPED THE TECHNIQUE OF USING AN ARCTIC ICE PLATFORM FROM WHICH FULL SCALE ARCTIC DEEP DRILLING RIGS CAN BE MOUNTED AND SUCCESSFULLY OPERATED DURING THE ARCTIC WINTER. AS THE INQUIRY IS WELL AWARE, PAN ARCTIC'S ACTIVITIES ARE CONSIDERABLY FARTHER NORTH THAN THE MACKENZIE DELTA REGION SO THAT THE TOTAL IMPACT OF DARKNESS, EXTREME COLD, HIGH WINDS AND ALL OF THE OTHER CONSTRAINTS PROVIDED BY AN ARCTIC WINTER HAVE BEEN ENCOUNTERED FOR THE CONSTRUCTION OPERATION PERIOD.

THESE ARE BUT A FEW OF THE EXAMPLES OF EXTENSIVE AND LARGE COMPLEX OPERATIONS THAT HAVE BEEN CARRIED OUT IN BOTH THE CANADIAN NORTH AND THE CANADIAN ARCTIC AND WHICH ARE RECOGNIZED THROUGHOUT THE WORLD AS THE SPECIALIZED DOMAIN HIGHLY DEVELOPED WITHIN CANADA. IN TERMS OF ENGINEERING AND EQUIPMENT DEVELOPMENT, THERE ARE THREE EXAMPLES OF EQUIPMENT DEVELOPMENTS WHICH COME TO MIND AND ALL OF WHICH HAVE HAD A PROFOUND EFFECT IN ASSISTING IN THE DEVELOPMENT OF CONSTRUCTION AND OPERATIONS IN THE CANADIAN ARCTIC.

THE BOMBARDIER VEHICLES FROM QUEBEC AND THE NODWELL TRACKED VEHICLES FROM ALBERTA ARE WELL KNOWN IN ALL PARTS OF NORTHERN AND ARCTIC CANADA. THE DEVELOPMENT OF THESE VEHICLES BY THEIR RESPECTIVE COMPANIES ARE A DIRECT RESULT OF HAVING TO COMBAT THE RIGORS OF THE CANADIAN NORTH AND THE CANADIAN ARCTIC. HAD IT NOT BEEN FOR THE DEVELOPMENT OF THESE VEHICLES IN CANADA BY CANADIANS WHICH ARE CAPABLE OF OPERATING UNDER THE ARCTIC EXTREMES, A GREAT DEAL OF THE ACTIVITY AND OF THE DATA WHICH HAS BEEN GATHERED RELATIVE TO THE ARCTIC WOULD NOT HAVE OCCURRED WITHIN THE SAME TIME FRAME.

TURNING TO AN ENTIRELY UNRELATED FIELD, THE DEVELOPMENT OF THE FAMOUS ALEX BOW FOR MORE EFFICIENT ICE BREAKING IS ANOTHER NOTABLE CANADIAN DEVELOPMENT. UP UNTIL THE DEVELOPMENT OF THE ALEX BOW, ALL ICE BREAKERS WORKED ON THE BASIS OF TRAVERSING UP ON TOP OF THE ICE AND BY SHEAR WEIGHT CAUSING THE ICE TO FAIL. THE USE OF THE ALEX BOW ON CANADIAN ICE BREAKERS PROVIDES FOR MORE EFFICIENT ICE BREAKING AND REPRESENTS ANOTHER WORLD RECOGNIZED CANADIAN DEVELOPMENT AIMED DIRECTLY AT THE CANADIAN NORTHERN AND ARCTIC CLIMATIC CONDITIONS.

AGAIN IN A COMPLETELY UNRELATED FIELD, THE POLAR CONTINENTAL ICE SHELF HAS BEEN EXAMINED BY THE CANADIAN GOVERNMENT FOR MANY YEARS AND DR. E. F. (FRED) ROOTS IS CONSIDERED ONE OF THE LEADING AUTHORITIES IN THE WORLD RELATIVE TO THE POLAR CONTINENTAL ICE SHELF. FROM MY OWN PERSONAL CONVERSATIONS AND EXPERIENCES WITH DR. ROOTS, HE AND HIS TEAM ARE RECOGNIZED AS THE WORLD'S LEADING AUTHORITIES IN THE POLAR CONTINENTAL ICE SHELF STUDIES AND MANY OF THE STUDIES WHICH HAVE BEEN UNDERTAKEN BY DR. ROOTS HAVE TAKEN PLACE UNDER THE EXTREMES OF AN ARCTIC WINTER.

I HAVE TAKEN THE LIBERTY OF GOING INTO SOME LENGTH TO EXPLAIN MANY OF THE ACTIVITIES THAT HAVE TAKEN PLACE IN CANADA BY CANADIAN ENGINEERS UNDER THE EXTREME WINTER AND ARCTIC CONDITIONS TO INDICATE TO THE PANEL THAT OPERATING UNDER THE EXTREME COLD AND ARCTIC CONDITIONS IS NOT NEW TO CANADIANS BUT ONE WHICH HAS BEEN PART OF CANADIAN HERITAGE SINCE CONFEDERATION.

FROM A PERSONAL POINT OF VIEW, MY ENTIRE BACKGROUND HAS BEEN RELATED TO WINTER AND ARCTIC ACTIVITIES AND THE DESIGN AND DEVELOPMENT OF SPECIALIZED EQUIPMENT TO OPERATE UNDER THESE CONDITIONS. IN TERMS OF OUR ENGINEERING COMPANY, WE HAVE BEEN ACTIVELY ASSOCIATED WITH ARCTIC WINTER STUDIES AND OPERATIONS OF EQUIPMENT SINCE THE BEGINNING OF THE COMPANY'S ACTIVITIES IN 1967.

OUR COMPANY HAS BEEN INVOLVED IN THE DESIGN AND DEVELOPMENT OF SPECIALIZED EQUIPMENT THAT HAS BEEN USED IN THE MOVEMENT OF ARCTIC DRILLING RIGS IN THE MACKENZIE DELTA REGION. WE HAVE ALSO BEEN INVOLVED IN THE STUDY AND EVALUATION OF BOTH MEN AND EQUIPMENT THAT ARE INVOLVED IN ARCTIC DRILLING RIG MOVES;

ALL OF THIS WORK BEING UNDERTAKEN BETWEEN NOVEMBER AND APRIL; THIS IS THE PERIOD OF TIME WHEN WINTER ACTIVITIES ARE AT THEIR HIGHEST POINT.

IN ADDITION, OUR COMPANY HAS ALSO BEEN ASSOCIATED AND INVOLVED WITH SPECIALIZED EQUIPMENT DESIGNS AND SPECIFICATIONS TO PRIMARILY DEVELOP EQUIPMENT TO COMBAT THE EXTREMES OF AN ARCTIC WINTER. THESE ACTIVITIES COMBINE NOT ONLY THE ACTUAL EQUIPMENT ITSELF BUT THE MATERIALS USED TO BUILD THE EQUIPMENT TO ENSURE THAT THE EQUIPMENT WILL OPERATE SATISFACTORY UNDER THE RIGORS OF AN ARCTIC WINTER ENVIRONMENT.

including the design of sleds, skis and special northern equipment for Canadian Arctic work

PRIOR TO FORMING THE CONSULTING ENGINEERING COMPANY, MY ENTIRE ENGINEERING BACKGROUND HAS BEEN RELATED TO THE DESIGN AND DEVELOPMENT OF SPECIALIZED EQUIPMENT WHICH WILL OPERATE SATISFACTORILY UNDER THE EXTREMES OF BOTH THE CANADIAN NORTH AND THE CANADIAN ARCTIC. MY OWN EXPERIENCES DATE BACK TO THE 1940'S WHEN AS AN UNDER GRADUATE ENGINEER, I WAS ASSOCIATED WITH EQUIPMENT OPERATIONS AND CONSTRUCTION PROGRAMS AT FT. CHURCHILL. DURING THE 50'S AND THE 60'S, MY CAREER HAS BEEN INVOLVED WITH THE DESIGN, DEVELOPMENT AND OPERATIONS OF ALL MANNER OF EQUIPMENT THAT BY NECESSITY WAS REQUIRED TO WORK DURING EXTREMES OF WINTER CONDITIONS FOUND IN NORTHERN CANADA AND IN THE ARCTIC.

SINCE THE FORMATION OF MY CONSULTING ENGINEERING COMPANY IN 1967, WE HAVE BEEN ACTIVELY INVOLVED IN MANY ASPECTS OF EQUIPMENT, DESIGNS AND OPERATIONS AS THEY PERTAIN TO THE ARCTIC. THESE NOT ONLY INCLUDE THE ACTUAL PIECES OF EQUIPMENT THEMSELVES BUT ALSO THE TECHNIQUES OF OPERATION WHERE THE USE OF FROZEN RIVERS AND LAKES ARE USED TO CREATE ICE ROADS. WHERE LAND TRAVEL IS

REQUIRED, THE TECHNIQUE OF BUILDING WATER AND SNOW ROADS ARE WELL KNOWN AND WELL DOCUMENTED. THIS TECHNIQUE HAS BEEN USED IN MANY AREAS OF NORTHERN AND ARCTIC CANADA FOR WINTER ACTIVITIES FOR MANY YEARS. OF RECENT DATE, NEW DEVELOPMENTS RELATIVE TO THE USE OF SNOW ROADS UNDER CANADIAN CONTROLLED CONDITIONS HAVE TAKEN PLACE WHICH AGAIN IS FUNDAMENTALLY THE RESULT OF THE BACKGROUND KNOWLEDGE BY CANADIAN ENGINEERS OF THEIR CANADIAN ARCTIC AND WINTER ENVIRONMENT.

THE BOARD MAY BE ALSO INTERESTED TO NOTE THAT WITHIN THE LAST TWO YEARS, A NEW SOCIETY HAS BEEN FORMED THAT RELATES BOTH THE EQUIPMENT AND THE TERRAIN SYSTEMS TOGETHER; THIS NEW SOCIETY IS CALLED THE CANADIAN SOCIETY FOR TERRAIN VEHICLE SYSTEMS AND IT IS INCORPORATED WITH THE INTERNATIONAL SOCIETY. I HAVE BEEN A MEMBER OF THE CANADIAN SOCIETY SINCE IT WAS INCORPORATED AND I AM PRESENTLY THE PRESIDENT OF THE CANADIAN SOCIETY. THIS BOARD OF INQUIRY MAY ALSO BE INTERESTED TO KNOW THAT A MEETING OF THE CANADIAN SOCIETY FOR TERRAIN VEHICLE SYSTEMS WILL BE HELD IN CALGARY ON JUNE 3 AND JUNE 4TH AND I HAVE A NUMBER OF BROCHURES AVAILABLE WITH ME WHICH WILL OUTLINE THE PROGRAM. I AM CERTAIN THAT THE BOARD WOULD BE MOST INTERESTED TO LEARN OF THE FORMATION OF THIS SOCIETY AND OF THE WORK THAT IT IS DOING.

IN SUMMARY, WHAT I AM RELATING TO THE BOARD IS THAT NOT ONLY OUR OWN COMPANY, BUT MANY OTHER LARGER CANADIAN ENGINEERING COMPANIES HAVE FOR MANY YEARS BEEN INVOLVED IN SEVERE WINTER AND ARCTIC CONSTRUCTION OPERATIONS AND ARE RECOGNIZED THROUGHOUT THE WORLD AS THE LEADING AUTHORITIES IN THESE COLD WEATHER OPERATIONS.

THESE TECHNIQUES FOR CARRYING OUT WINTER OPERATIONS FROM NOVEMBER THROUGH APRIL UNDER SEVERE ARCTIC CONDITIONS ARE THE TYPES OF THINGS THAT HAVE BEEN DEVELOPED



BY CANADIAN ENGINEERS SINCE CONFEDERATION; THIS IS OUR COUNTRY AND WE HAVE LEARNED TO LIVE AND OPERATE WITHIN THESE CONSTRAINTS. IN TERMS OF ENGINEERING, WE AS CANADIAN ENGINEERS HAVE LEARNED TO COMPARE OUR TECHNIQUES AND OUR METALLURGICAL CONSIDERATIONS WITH OTHER COUNTRIES TO ENSURE THAT CANADIAN ENGINEERING IS AWARE OF THESE LATEST TECHNIQUES. WE HAVE ALSO LEARNED WITH BITTER EXPERIENCE NOT TO ACCEPT THE FINDINGS OF OTHER COUNTRIES AND TO SIMPLY SUPERIMPOSE THESE FINDINGS IN OUR OWN OPERATIONS UNDER THE SEVERE ARCTIC WINTER CONDITIONS.

WHAT WE HAVE LEARNED TO DO IS TO UNDERSTAND AND COMPREHEND THE TECHNICAL ACHIEVEMENTS THAT ARE TAKING PLACE IN OTHER COUNTRIES AND TO ALTER AND TO CHANGE THESE ACCORDINGLY SO THAT THESE MODIFIED TECHNIQUES WILL OPERATE SATISFACTORILY UNDER ARCTIC CONDITIONS. WE HAVE ALSO LEARNED TO DEVELOP OUR OWN TECHNIQUES AND ENGINEERING EXPERTISE TO ENSURE THAT THESE OPERATIONS WILL BE SUCCESSFUL.

WHILE THE CANADIAN EXPERTISE IN TERMS OF ARCTIC OPERATIONS IS WELL RECOGNIZED THROUGHOUT THE WORLD, THERE ARE STILL INSTANCES WHERE EQUIPMENT AND TECHNIQUES WHICH HAVE PROVEN EMINENTLY SUCCESSFUL IN OTHER PARTS OF THE WORLD ARE SIMPLY INTRODUCED INTO THE CANADIAN ARCTIC WITHOUT CHANGE. OUR COMPANY HAS SEEN THE DISASTROUS RESULTS THAT HAVE OCCURRED WHEN SUCH EQUIPMENT HAS BEEN BLINDLY APPLIED TO THE CANADIAN ARCTIC.

MY PURPOSE IN APPEARING AT THIS INQUIRY IS TO INFORM THE BOARD THAT SINCE CONFEDERATION, CANADIAN ENGINEERS HAVE BEEN AWARE OF AND HAVE BEEN DEALING WITH THE EXTREMES OF BOTH THE NORTHERN AND ARCTIC WINTERS AND WE HAVE LEARNED TO OPERATE IN THIS ENVIRONMENT. TO SUGGEST THAT ANY NORTHERN OR ARCTIC OPERATION

MUST SHUT DOWN FOR TWO MONTHS OF THE YEAR DURING THE ARCTIC WINTER IS COMPLETELY WITHOUT FOUNDATION AND IN MY OPINION IS IRRESPONSIBLE. CANADIAN ENGINEERS AND CANADIAN COMPANIES HAVE BEEN DEALING WITH AND OPERATING IN THE ARCTIC VIRTUALLY SINCE CONFEDERATION AND I KNOW OF NO CANADIAN OPERATION THAT HAS SHUT DOWN FOR SUCH A PERIOD OF TIME DURING AN ARCTIC WINTER.

IF THE BOARD HAS RECEIVED INFORMATION THAT WOULD INDICATE THAT A CANADIAN OPERATION, PARTICULARLY THAT OF A CANADIAN PIPELINE OPERATION WOULD HAVE TO SHUT DOWN FOR A PERIOD OF TWO MONTHS DURING THE ARCTIC WINTER THAN I AM INDICATING TO THE BOARD IN THE MOST STRONGEST POSSIBLE MANNER THAT THE INFORMATION THAT THEY HAVE BEEN GIVEN IS COMPLETELY FALSE AND DOES NOT REFLECT ANY CONSULTATION WITH THOSE CANADIAN ENGINEERS AND COMPANIES THAT HAVE FOR MANY YEARS OPERATED UNDER THE EXTREMES OF AN ARCTIC WINTER ENVIRONMENT.

SUBMISSION

by the

CALGARY CHAMBER OF COMMERCE

to the

MACKENZIE VALLEY PIPELINE INQUIRY

at

CALGARY

MAY, 1976

The Calgary Chamber of Commerce is a 2,700-member body of businesses and professional men and women in the Calgary area. Indirectly it is a voice for some 55,000 Calgary citizens employed by the Chamber membership.

It is our concern, Mr. Commissioner, that, in spite of the long and important association of the oil and gas industry with this city, most Calgarians are not aware of the significance of the current Mackenzie Valley pipeline deliberations now before the National Energy Board and before this Inquiry. This lack of awareness must be even greater in other regions of our country, where the oil and gas industry is not directly involved.

Most Canadians probably view the public pipeline debate in terms of "Will a Mackenzie Valley pipeline be built, and if so, under what conditions?" Canadians should, however, address themselves to the fundamental issue: "Will Arctic reserves be developed and available in time to meet generally predicted shortages?"

Media coverage has been extensive. But much of the reported testimony before the N.E.B. is difficult for the general public to fully understand; and the Chamber is concerned that the northern hearings before this Inquiry may be viewed by the public as simply a fight between the oil and gas operators and northern residents.

This is not the Chamber's view however. We support your stated concern for adequate time and opportunity to hear the viewpoints of Canadians, particularly those living in the North, in order to properly assess the regional impact of a Mackenzie Valley pipeline.

Our concern is the impact on all Canadians, including Northerners. If Canada, ten years from now, is faced with enormous purchases of foreign oil to offset oil and gas shortages, the economic impact will be felt by all Canadians, including northern residents who are dependent on Canadian manufacturers and distributors for a wide range of consumer goods including food, clothing and essential hardgoods.

It is from this viewpoint, therefore, that we felt that the Chamber should appear before this Inquiry, and speak to the needs of the millions of Canadians who have a critical interest in the expeditious consideration of, and practical solutions to, the many issues and uncertainties related to the construction and operation of a Mackenzie Valley natural gas pipeline.

EFFECT ON CANADA OF PREDICTED OIL AND GAS SHORTAGES

It has been established by the National Energy Board that, based on present supply and demand projections, Canada soon will be facing a natural gas shortage if supplies from the western provinces are not supplemented. If this situation is allowed to occur, Canadians will feel the effect in several different ways.

Canada is a country where the consequence of a shortage of energy would be far more serious than a matter of inconvenience and personal discomfort. Canada is a large country with a relatively small and unevenly distributed population. We need fuel for the transportation of people, raw materials and finished products. Furthermore, because of the seasonal harshness of the Canadian climate, Canadians need oil and gas

as fuel in order to survive. At work or at home, Canadians are not equipped to withstand prolonged fuel shortages, and we do not have the capability to quickly convert to an alternate energy supply, even if such were available.

Additionally, without the security of domestic oil and gas supplies, Canada will have no means of holding down fuel costs that are an important cost element in products and materials produced for export markets. Loss of ability to compete in world export markets would mean increased unemployment and higher consumer prices.

The situation with respect to anticipated oil and gas shortages was summarized recently by The Hon. Alastair Gillespie, Minister of Energy, Mines and Resources:

"Canada today, like the U.S., is a net importer of oil. Just two short years ago, we were a net exporter.

"Natural gas prospects are almost as bleak. Spot shortages are predicted starting late in this decade. By early in the 1980's, a gap will appear between domestic demand and conventional gas supplies.

"So in terms of easily accessible oil and gas, our best years are obviously behind us. We're turning now, as you know, to the Arctic and offshore -- our frontier areas."

We believe sufficient has been said about these forecasted needs, but that not enough has been said to the Canadian public about the impact on our country if this shortfall is permitted to occur and continue.

The United States, England and Italy are examples of countries which were significantly or totally dependent on foreign oil imports, and which were dealt severe economic blows as a result of oil embargoes.

The development of Arctic oil and gas reserves offers Canadians the choice of energy independence or of being at the mercy of producing countries for supplies on whatever terms they may dictate for internal economic or political reasons.

It should be clear to everyone that alternate energy sources will not provide a solution to oil and gas shortages in the early 1980's. The time will come, no doubt, when large-scale use of solar energy, tidal power, coal and nuclear plants will be acceptable and economical. But within the time period we are concerned with, the cost and lack of technology are prohibiting factors. Therefore, the choice is clear: Develop Arctic oil and gas reserves, or buy increasing volumes of foreign crude.

Consider the effect of increasing dependency on foreign imports, even if offshore crude prices should remain at current levels. By 1985 the value of oil imports necessary to offset domestic shortages of oil and gas will be about \$7 billion, with a total value over the 10-year period of about \$40 billion. This is a staggering amount, and its effect on consumer prices through balance of trade deficits will be felt by all Canadians -- regardless of where they live.

REGIONAL IMPACT

The Chamber supports the position taken by the Federal Government of having established this Commission to consider the

concerns and opinions of Northerners on a Mackenzie Valley pipeline.

The development of Arctic reserves will have an effect on the people of the North; and no doubt individual Northerners or representative groups already have expressed legitimate concerns. We all realize, however, Mr. Commissioner, that there is always some cost to any kind of development. In the case of a Mackenzie Valley pipeline, we hope the cost associated with the development of Delta reserves can be minimized. We must recognize that all 23 million people in Canada will be seriously affected if no compromise can be reached between regional and national interests.

ENVIRONMENTAL IMPACT

We accept the statements of biologists who are expert on the Arctic environment, that the ecology of this region is different. It is unlike the rest of Canada. And we believe that your Commission, and the Federal Government through the National Energy Board and appropriate departments, should satisfy yourselves that the oil and gas industry has the experience, capability and corporate responsibility to conduct its operations in a manner that will permit the development of northern hydrocarbon resources with minimal environmental damage.

We recognize that the environment will be modified. We must, however, achieve a proper balance between environmental change and the overall economic advantages.

ECONOMIC IMPACT

We believe that Northerners directly affected by the construction and operation of a Mackenzie Valley pipeline should be concerned about the economic impact of both the pipeline and related development facilities in the Delta.

We feel that individual Northerners must be able to participate in opportunities generated by the project. We believe that permanent and temporary job opportunities must be offered to all Northerners, and that assistance should be provided, in order for them to train and qualify for skilled and semi-skilled jobs.

The job opportunities from the pipeline project and the related development activities need not prevent those Northerners now engaged in fishing, hunting and trapping activities on a full or part-time basis, from continuing to do so. Instead, the increased number of full and temporary job opportunities will enable many more Northerners to choose their means of earning income. They will have the choice of full-time employment, living off the land, or some combination in between.

It is our understanding that the exploration and producing companies and both pipeline applicants are committed to provide employment for those Northerners who want to work on these projects. We endorse this commitment as being fundamental to northern participation.

To date the oil and gas industry has spent over \$500 million in exploration in the Delta and Beaufort Sea area -- risk dollars spent with the knowledge that the reserves soon would

be needed by Canada, and under the reasonable assumption that necessary approvals would be granted.

Oil and gas activity in the North has provided considerable employment for Northerners. In the year ending April 30, 1975, 761 northern residents were employed by the industry for varying lengths of time. The number of jobs will increase substantially with approval to construct and operate a pipeline.

Postponement, or lengthy delay in pipeline approvals, for whatever reasons, will force the oil and gas operators to severely reduce or halt their activities. For example, if a two year moratorium were imposed on the start of construction, the overall delay in start-up would be in the order of eight years. If such were to occur, all of Canada would suffer. It also would mean fewer jobs being held by Northerners, and less opportunities of permanent and temporary work that the Northerners may choose from, depending on the life style they wish to follow.

We should also remind ourselves that delay will mean escalated cost, which will be passed on to the consumer. A point could be reached when the project would be cancelled because of having become economically unsound. That would be tragic for all Canadians and possibly an unanticipated economic blow to the native peoples of the North who expect to share in revenues from resource development. The pipeline is essential to hydrocarbon development. Without it there will be neither gas nor revenues to share.

SOCIAL IMPACT

We believe that consideration should be given to regional social impact of the construction and operation of a

Mackenzie Valley pipeline and related development facilities. There will be social impact of course, but we believe there will be positive values that will help the Inuit, Indian and Metis adjust to the impact of many other social forces -- some new, some long-established.

Cultural integration in the Delta has been a continuing process for over 100 years: the visits of the early whalers; the introduction of the gun; early establishment of churches and schools; government programs of housing, health care and education; and modern transportation in the form of snowmobiles and aircraft. The process is continuing with a daily window on the world, televised via satellite, and before long a highway that will link the Delta with southern tourists.

We certainly do not suggest that Northerners should be denied any social advancements or programs available to other Canadians. Instead, we believe they should have the economic opportunities that will enable them to participate in a changed society on an equal basis with other Canadians.

We believe, Mr. Commissioner, that the individual economic opportunities of a pipeline and of the development that will follow for years to come, will assist the Northerners to adjust to the social changes that have taken place.

ABANDONMENT?

Finally, may we refer to the Commission's terms of reference, in particular to the suggested consideration of the regional impact of abandonment of a Mackenzie Valley pipeline.

Not everyone realizes, Mr. Commissioner, that a pipeline of this magnitude, built to service a high potential natural

gas area such as the Mackenzie Delta and the Beaufort Sea would not go into operation one year and cease operations 20, 25 or even 30 years later. Pipeline approval will be the key to more exploration, more development, and more job opportunities.

Exploration in the Delta now is at a point that properly may be called an opportunity threshold -- a situation that has been experienced in dozens of areas around the world. The formula is basically the same: First, substantial risk dollars are spent by the oil industry in an area that has good potential, but is yet unexplored. Then, after many years, the results may be discouraging, as in the case of Canada's West Coast offshore area, or may be encouraging, as in the case of the Mackenzie Delta.

Where the results are encouraging, and a transportation system develops, the industry moves into the second phase of activity: proved reserves are developed and produced; the assured transportation system provides economic motivation for a new round of exploration, which adds more reserves, and further development activities. The widening circle of exploration and development work which stems from a transportation system, creates a diverse range of contract opportunities for the industry's service and supply companies, and new job opportunities for the residents.

This second phase of activity creates not only more jobs, but a more diverse range of job opportunities, for which local residents can train and qualify. A few such jobs would be battery operator, gas plant operator, welder, mechanic, various clerical positions, carpenters, painters, drivers and so on.

This ripple effect also will reach the supplier and local distributor of consumer goods and will help stabilize the regional economy. This is what happened in Alberta in the past 20 years or so. In the 1950's, major pipelines linked Alberta's proved reserves to distant markets, and generated the revenues for companies to reinvest in the second phase of exploration and development. More jobs were created with the growth of existing companies, and the formation of new companies. Today, in the mid-seventies, we hear no talk of abandoning these pipeline systems. Oil and gas industry activities are continuing in this province, providing employment for thousands of people. Albertans have benefited, and so have all Canadians.

It is reasonable to assume that the Alberta experience in terms of continuing social and economic benefits may be repeated in the North.

SUBMISSION TO MR. JUSTICE THOMAS R. BERGER
 MACKENZIE VALLEY PIPELINE INQUIRY, HEARINGS AT CALGARY, ALBERTA
 SUBMISSION BY CARL O. NICKLE, PRESIDENT, CONVENTURES LIMITED
 FRIDAY, MAY 14TH, 1976...

GAS ARCTIC AND POLAR GAS - THE PROPOSED INTERNATIONAL MULTI-BILLION DOLLAR
 PIPELINE SYSTEMS TO LINK ARCTIC GAS WITH MAJOR MARKETS OF NORTH AMERICA...



CONVENTURES LIMITED

CARL O. NICKLE, President

May 13th, 1976

100, 330 Ninth Avenue S.W.,
CALGARY, ALBERTA, CANADA
T2P 1K7

SUBMISSION TO MR. JUSTICE THOMAS R. BERGER
MACKENZIE VALLEY PIPELINE INQUIRY, HEARINGS AT CALGARY, ALBERTA
SUBMISSION BY CARL O. NICKLE, PRESIDENT, CONVENTURES LIMITED

(CARL O. NICKLE, founded the "Daily Oil Bulletin" in Calgary October 1937, and as Editor and Publisher became known throughout North America through his factual reporting, editorials and speeches as Western Canada developed as an important oil and gas source. He served in Canada's Parliament 1951-1957, retired voluntarily to return full-time to his business activities and advocacy of Energy Policies for Canada's Future. He retired as Publisher in 1972 to embark full-time on a new career as principal of a Canadian-owned independent energy company, Conventures Limited.

In addition to its development of Western Canadian oil and gas, Conventures is a participant in Panarctic Oils Ltd. in the Arctic Islands and (as 21% owner of Alberta Natural Gas Company Ltd.) is an indirect participant in the proposed Gas Arctic MacKenzie Valley Pipeline. His company is actively pressing Gas development in Alberta, thus making its modest contribution to adequacy of Gas supply until Frontier Gas becomes available. Conventures believes that both a MacKenzie Valley Pipeline and a system from the Arctic Islands are essential to helping meet North America Energy Needs, that a combination of Canadian-U.S. markets is essential to economic viability, and that both systems will - in the Canadian public interest - have to be approved, financed and built over the decade ahead).

SUBMISSION TO MR. JUSTICE BERGER:

First, Mr. Justice Berger, thank you for the opportunity of appearing before you to express my personal views on matters related to your MacKenzie Valley Pipeline Inquiry. I congratulate you on your patience and understanding during the lengthy hearings you have conducted in the Northwest Territories and the Yukon the past year. You have already accumulated some 20,000 pages of testimony, a majority covering the broad spectrum of views, opinions and interests among the peoples who live in the North. The testimony includes views developed by some citizens of Southern Canada, on behalf of and presumably in the interests of Northerners, utilizing grants provided by the Government of Canada.

As you yourself have stated "The North is of concern to all Canadians, and we want to give the people in the South a chance to make their views known to the Government through the Inquiry." Thus, sir, your current round of public hearings in Canadian cities, from Vancouver to Halifax.

There are few Canadians without bias, one kind or another, when talk or thought turns to Energy Development of the Canadian North. At one extreme are those who claim there should be no Northern Development, for that would destroy life style of Northerners; or critically upset balance of nature of animal, bird and sea life; or would cause environmental damage so vast as to damage life of all kinds everywhere. At the other extreme are the few who say Energy Supply is the vital thing, and damn any other considerations. Neither extreme is right.

I am not an extremist, but I do have a bias, which I will fully define in the course of my remarks. I have a warm appreciation of the need for equitable treatment of all those hardy souls who, whether native or immigrant, live and work in the Arctic. I am among those who for some years has advocated fair and prompt settlement of land and other claims

of northern native peoples. That does not mean endorsement in full of the Proposals recently made to the Government and to this Commission on behalf of northern natives, prepared in several years of research paid for by Canada's taxpayers. I regard these as I would one side's "starting position" in a business or diplomatic negotiation.

I trust that reasonable people on behalf of native organizations and government will achieve a reasonable negotiated settlement. I hope than an agreement in principle can be reached before final government decision on the MacKenzie Valley Pipeline applications now before the National Energy Board. However, because of the urgency to all Canadians of getting Northern Energy on stream early in the 1980's, requiring a MacKenzie pipeline decision by early 1977, I cannot endorse the proposition that there must be detailed completion of Northern Native Settlement Agreements in advance of approval of a pipeline.

I appreciate the need for environmental protection, to minimize disruption of and maximize protection of all forms of life, and to ensure to the highest possible degree that land, water and air are not harmfully polluted by actions of Energy seekers, producers and transporters.

I recognize, however, that total environmental protection - whether in the North or in the areas of human settlement in the South - is an impossible dream. Wherever there is human or any other form of animal life there is some degree of environmental damage and pollution. We humans are capable of minimizing, but not of eliminating, environmental damage, if we have the will and/or governments require it.

Incidentally, it is inevitable that humans - including Canadians - will finally accept that Energy Needs require some modified Environmental Protection Standards. There will be a price tag attached, in terms of consumer costs. For example, much of the garbage and human and animal wastes that now create a growing Environmental problem can be converted in the future into heat for Electricity generation, and into Methane Gas and Synthetic Oils. There would be a gain in terms of Environment, but costs of conversion to Energy with existing technology would probably double or more the Energy costs to which Canadians and Americans have become accustomed.

Mining of our huge Coal reserves create some Environmental hazards, and whether Coal is used in original form or is converted to Gas or Oil, costs to consumers will be much higher than we are so far paying. The same is true of Mining of Athabaska Tar Sands or U.S. Oil Shales, both in regard to some Environmental hazards and higher costs. There are Environmental hazards too in expansion of Nuclear Power production, and even in such long-range permanent Energy developments as Hydrogen from sea water, and Solar power.

I firmly believe that those who are now engaged in Canada's Northern Development, and those who hope to expand such development and provide transport links, are very fully "environment-conscious". Their acceptance of a high degree of Environmental Protection is not only because government and the public require it, but also because simple economics put a much higher price tag on clean-up of environmental damage, than on adequate measures to minimize such dangers.

WHY THERE IS URGENCY FOR DECISIONS ON NORTHERN DEVELOPMENT:

I also have a deep awareness of a simple set of facts. First, Canada's North contains a vast Potential of such Energy Resources as Oil, Gas, Coal, Oil Shales and Sands, Uranium and Hydro-power generating capacity. The Economic future of Canada, and the Energy Security of all Canadians, depend in a large degree upon massive development of that Potential.

Secondly, mere Potential of Energy such as Gas and Oil under the Mackenzie Delta, Beaufort Sea, or under lands and waters of the Arctic Islands, can do nothing to heat a home in Ontario, fuel a family car in Quebec, generate Electricity in Nova Scotia, provide

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fuel or raw material for industry across the nation, fuel all forms of transport in Canada, or protect Canadians from costly dependence on Foreign Energy.

Even when long and costly efforts of men transform Potential into Oil and Gas Fields in the Arctic - as has been done over recent years - the Energy discovered can do nothing to meet needs of humanity. That brings me to the third simple fact. Potential must become Useable Energy, with means in place to deliver it to places of need, as much as 1,500 to 3,000 miles distant from Energy source. Achieving the means to deliver Northern Energy takes both time and money. For example, if favourable decisions for a Mackenzie Valley Gas Line are reached early in 1977, late-1981 would be the earliest date by which the system could be financed, built and put into operation.

THE RIGHTS AND RESPONSIBILITIES OF ALL CANADIANS:

Indeed, in my view, the Right and Responsibilities of all Canadians is to find, develop and transport Northern Energy as fast as humanly possible. That means a speed up of the rate at which decisions on the North are made by those who govern us, those who advise government, and those who on behalf of government and Northerners negotiate settlement of Northern Claims. There must be a speed-up of attraction to huge amounts of risk capital that literally stagger the imagination of most. Money must come from small investors and large, and Canadian and foreign sources alike, to accomplish the task of getting Useable Energy from the North by the early 1980s.

The recently published "Energy Strategy for Canada" has set as one target a minimum doubling (to over \$700 Millions annually) exploration and development activity in Canada's Frontiers, within three years, under acceptable social and environmental conditions. That target does not include the many Billions of dollars needed to provide transport facilities - and certainly without reasonable assurance of transport and markets, the exploration money targets cannot be achieved. In Ottawa today, there is growing realism about the urgency of Frontier (including Northern) development.

THE BIAS OF NICKLE:

I noted earlier I have a bias. Here are the reasons. For two-thirds of my life, since 1937, I have been an Editor and Publisher and a close student of the Canadian oil and gas industry, and of a rapidly changing world in terms of its Energy sources of supply, and hunger of Energy among its inhabitants.

Long before OPEC lowered the boom in 1973, I was warning of the dangers of Energy Crises in the 1970s and 1980s, and, in presentations both to governments and citizen groups, was recommending policies to provide North America with greater internal Energy Security. Few Canadians were interested in listening during the era of apparent "cheap" imported Energy. I recall particularly my presentations, as President of the Independent Petroleum Association of Canada in 1969, to the present Prime Minister and his Cabinet and to the Policy Conference of the principal party then in Opposition. It took the OPEC quadrupling of prices of their oil, accounting for 90% of trans-ocean international oil shipments, and the Arab embargo on oil deliveries to nations supporting Israel, to awaken the world to the facts that the "cheap" energy era is over and that over-dependence on OPEC energy has dangers. Tragically, both in Canada and the United States, there is again widespread complacency, a lack of adequate sense of urgency.

I purposely referred to "North America" rather than "Canada" alone because the economics of geography and major population centres long have dictated that Canadians could minimize their Energy costs and improve the national economy by having United States markets carry a major share of Energy development and transportation burden. That has applied to Alberta and other Western Province oil and gas over the past quarter century.

It is at least equally applicable to Northern Energy. Western Arctic and Arctic Islands Energy can be delivered to Canadians for hundreds of millions of dollars less per year, if unit transportation costs are kept at a minimum by access to American markets. In the Western Arctic, Canada must by speedy decision making win the right to carry the huge Gas Reserves of Alaska's Prudhoe Bay via the Mackenzie Valley to American markets across the Continent, if it is to have an economically viable means of connecting Mackenzie Delta-Beaufort gas to southern Canadian markets. Indeed, I seriously question whether any Canadian Arctic Gas Energy could become Useable Energy if all costs had to be absorbed solely by Canadians as consumers, or by levying of a heavy subsidy burden on Canadians as taxpayers.

Over two decades ago I began putting personal financial resources, which are only a fraction of one percent of total capital needs - into Energy exploration and development in Canada's West. Sixteen years ago I joined with others in the long-range, high-risk task of geological and drilling exploration in the Arctic Islands. That was at a time when, if Canadians thought of the High Arctic at all, it was as a remote, frozen "buffer zone" between the Soviet Union and North America. Except for a few hundred very hardy souls, even Eskimaux found the High Arctic (north of the Northwest Passage) too severe for permanent living.

Several years ago, I gave up publishing to head a Canadian-owned, public, independent Energy company, Conventures Limited. It is a shareholder of Panarctic Oils Ltd., the government-industry consortium exploring the Arctic Islands. It also has a stake in the proposed Gas Arctic Pipeline to link Alaskan-Mackenzie Gas to North American markets, via the Mackenzie Valley. That stems from a major Conventures' investment in Alberta Natural Gas Company Ltd. in 1972, which company subsequently joined Gas Arctic. As fast as funds can be generated or borrowed, Conventures is risking it in oil and gas projects in Western Canada and the Arctic.

Let me be frank. I explore and develop partly because I have long realized that our Canada faces Energy Problems, and I cannot reasonably expect fellow Canadians to do something about it, unless I demonstrate a willingness so to do.

But the ultimate objective of investment is to make a profit. Without that incentive, neither I nor you nor any other common-sense person would gamble his assets in high-risk ventures. The "Profit Motive" is a key factor in the risking so far of over \$25 Billions in Western Canadian Energy Projects, and in the spending to date of over \$1.5 Billions in the Northern areas of Canada in exploration by big companies and small, by foreign investors and Canadians. It is a factor also in the spending so far of over \$100 Millions by the Gas Arctic consortium of Canadian and American companies in engineering, ecological, environmental and economic studies for a Mackenzie Valley pipeline, and in presentation of its case at governmental hearings in two nations.

ROLE FOR GOVERNMENTS:

Governments in Canada, and elsewhere, are also assuming a greater role in Energy, including in Canada the accepting of part of the high-risk investments. I have no strong objection to governments sharing in risks, provided they do so on terms comparable to individual investors. But governments must either tax to pay for their part in Energy projects, or more likely borrow against future income, leaving citizens to pay both principal and interest in future taxes.

Put bluntly, there is no panacea for Canadians in having governments take over a major part of the role in future Energy development, since it cannot match the efficiency and risk-taking willingness of a host of competing private-sector corporations. Governments can, as now, play a supplementary role in Energy projects - but its primary task is to set the terms and conditions under which governments as mineral-owners share in proceeds of success by risk-takers, and set standards that will keep risk-takers willing to gamble huge amounts within Canada in the competitive world of other nations who need, and try to attract the world pool of such capital.

CANADIAN ARCTIC OIL AND GAS:

Gas and Oil have been discovered in the Canadian Arctic, but none has yet been produced to generate revenue. The MacKenzie Delta and adjoining shallow water-covered area has so far come up with possibly seven trillion cubic feet of gas reserves and one billion barrels of oil, not yet enough to support either a gas or oil pipeline to southern markets, except in association with Alaskan Reserves. (As you are aware, appraisals vary as to actual extent of Mackenzie reserves in discoveries so far made, with submissions to the National Energy Board ranging from 6.2 to 8.4 trillion cubic feet, subdivided into Proved, Probable and Possible Reserves. More drilling and testing of known structures is needed to more precisely designate reserves, just as much more drilling of other structures including those in the Beaufort Sea is needed to determine the ultimate Potential for Gas and Oil.

The Arctic Islands have so far indicated up to 15 trillion cubic feet of Proved, Probable and Possible Gas Reserves, and possibly 200 million barrels or more of oil, according to the prime explorer, Panarctic Oils Ltd. These are not yet enough to support transport systems, but the Potential for much more Reserves exists. Sometime in 1977 Panarctic and other sponsors of a Polar Gas Line from the Islands hope to have sufficiently advanced in engineering, economic and environmental planning - and in size of Gas reserves - to apply for approval of a costly pipeline system.

Many more billions of dollars must be attracted and spent before the first dollar of cash flow can come, and before Northern Potential can become Useable Energy. Risk-dollars flow into the North will drastically slow-down or dry-up, leaving the Arctic to resume its role of centuries past, or to become a target for other nations such as those across Polar Ice, unless there is soon some assurance that production cash-flow can be achieved within the next few years.

There is another objective, shared by many men and women whose capital and/or jobs are in Energy fields in Canada. That is, doing our part to ensure that Canadians of the near- and long-term future will have economic opportunity, the benefits of massive capital investments within Canada on Energy, and in the supplying of goods and services, and a minimum possible dependence for Energy upon Arab states or any other Energy exporting nations.

COST TO CANADA OF SLOWING OR STOPPING NORTHERN DEVELOPMENT:

Over the past three years, since OPEC actions brought public concern about Energy, a combination of both decisions and non-decisions by governments in Canada have led to our nation this year being less than self-sufficient in balance of Hydrocarbon Energy.. Not enough has been done to curb wasteful use of Energy within the nation, though a government drive is now underway to try and get citizens to conserve.

Oil exports have been cut drastically, so that proved Western Province Oilfields can be stretched out an extra year or two before Ontario, like Quebec and the Maritimes, becomes heavily dependent on foreign oil. Oil imports now exceed exports, creating a hefty international trade deficit on petroleum account. Natural Gas supplies from Western Provinces, especially Alberta where exploration has recently been accelerated, are serving Canadians from the Pacific to Quebec, in addition to honoring export contracts that have made the development of reserves and the economic deliveries to Canadians possible. The gas exports this year will generate over \$1.5 Billion in U.S. dollar earnings. The Canadian needs and export contracts can be met in the years immediately ahead, but unless Northern Gas can be provided in the early-1980s, Canada may be forced into stretching Western supplies by curtailing exports below contract levels, thus further worsening a Balance of Payments deficit that is already very serious.

In 1975 Canada suffered a deficit of about \$5.5 Billions, three times larger than in the year before. In 1976 the deficit is now forecast as still larger. Balance of Payments

can be corrected by increased export sales of Canadian goods and services, or by borrowing from outside the nation. In 1975 Canadian Governments and corporations borrowed over \$4 Billions from abroad - adding to the burden of Interest costs to be paid outside the nation.

I am hopeful that Canada will bite the bullet sufficiently to improve the nation's chances of successfully competing in foreign markets with enlarged Canadian exports of food stuffs, manufactured goods, raw materials and services. But, unless we take steps fast to expand Energy development and get Northern Energy flowing before the end of 1982 (meaning decisions and start of a Mackenzie Valley gas system in 1977), Canada's Oil and Gas Balance of Payments alone will rise to as much as Five Billion Dollars per year, putting the whole Canadian economy in a grave position.

CANADA'S ENERGY BURDEN:

Internally, Canada's government is bearing a heavy burden because of its decisions to try and insulate Canadians from impact of OPEC oil price boosts. Now Ottawa and the Provinces have accepted the principle there is a heavy price tag for all Canadians from the kind of moves made in haste after the 1973 OPEC action. Internal oil and gas prices are being allowed to gradually, over a term of several years, advance to world levels. Canadians will pay at the pump for gasoline, and to their utilities for gas, instead of the present system of subsidizing oil imports through the taxpayers and through incentive-reducing net price levels to oil and gas explorers.

Excessive Producing Province and Federal Royalty and tax levies, that cream off 75% or more of the oil and gas price increases allowed, are being gradually modified. Governments are beginning to realize that costs of replacing present oil and gas reserves with new supplies in the West, the North, from Tar Sands, Coal Conversion and other means are all far higher than costs of the past. That means that production must net more exploration dollars per barrel of oil or MCF of gas, and billions of dollars of new capital must be attracted, to start a reversal in the early 1980s of the present unhappy Energy outlook.

BALANCE OF PAYMENTS:

Over the Decade ahead, through 1985, Canada will be forced to go into external debt by many Billions of Dollars to pay for imported Energy. Lowest estimate of the Energy trade deficit ahead is \$18.5 Billions, but that assumes OPEC will leave its oil price at present level for ten years, that internal oil supply will be augmented by one new major Athabaska Sands plant each three years, and that oil imports' bill will continue to be partly offset by earnings from gas export at present contract levels. OPEC prices will continue rising, perhaps geared to world inflation rate; economics and environmental debates have already thrown Athabaska Tar Sands Schedule well behind; and political pressure on gas exports, and thus U.S. dollar earnings to partly offset oil import costs, will rise or decline dependent on how soon Arctic supplies can become useable. In my view, Canada's net energy deficit the decade ahead will be a minimum \$25 Billions, but could be as much as \$40 Billions. Start of the first Arctic gas pipeline next year, timed for Energy flow by 1982, could hold the external debt figure to the minimal level.

If we recognize the vital importance of internal Energy development, including the Arctic, fast enough, we could have as much as \$60 Billions of investment in Hydrocarbon Energy Projects alone over the decade ahead. Part of that would be new investments from abroad, helping offset international trade deficits, and creating internal revenues that would remove much of the future burden of carrying and repaying debt. The Energy Projects would increase employment within Canada, both in the Projects themselves, and in equipment, materials and consumer goods industries across the nation. They would generate large new revenues for governments, both from royalties and taxes on Energy activities, and from the companies and people who directly or indirectly would gain income from the Projects.

But there is a high cost to Canada for every month we delay vital decisions, such as equitable mineral right, royalty and taxation rules on Energy; settlement on equitable terms of Northern native rights claims; settlement on reasonable rules to protect environment in regard to onshore and offshore drilling, development and transport activities.

23,000,000 CANADIANS HAVE A VITAL STAKE:

We must recognize that over 23,000,000 Canadians of the south have a stake in Northern Development, as well as the 70,000 residents of the North; that Foreign capital and markets are needed along with Canadian to ensure adequate internal Energy and other economic development; that continued drift to increased dependence on Energy imports would burden Canada with vast debts, as well as put our Energy-dependent economy under the gun of foreign states; and that Total Environmental Protection can only be achieved by turning the nation back into an untapped, undeveloped, uninhabited wilderness.

Mr. Justice Berger, you are engaged in a most difficult and vital task, and one that must in the interests of Canada bring forth your recommendations within a few months specifically on the matters set out in your terms of reference.

I have deliberately gone beyond your terms of reference in my remarks, to touch in some detail on related matters I believe are vital to all our countrymen. I know of your honest and deep concern with the North and the future of Canada as a whole, and I look forward to your forthcoming report to our government.

RESPONSIBILITIES AND CHOICES:

*We Canadians will be able to say we have recognized our Energy Responsibilities if we quickly accept that reasonable compromises are the only sense-making decisions on the various Northern Development matters, that acceptance by a majority of any extreme decision on native rights, environment or development would critically hurt future of all.

*We must recognize that Frontier exploration, development and transport require mind-boggling amounts of capital, not obtainable without incentive of policies that offer prospect of profit commensurate with risks.


*We must recognize that production and sale of present Western oil and gas must generate much of the required capital, that replacement costs of new Energy will far exceed costs of present supply.

*We face a choice of paying for Energy as consumers, or as taxpayers by way of subsidies - and if we fail to expand internal Energy supplies fast enough, Canada continues down a road as dangerous to our national economic health as that along which nations like Britain and Italy have travelled to their sorrow, and now struggle desperately to get away from.

I for one have sufficient faith in the common-sense of Canadians, of those who govern us, and those like yourself who are charged with advising our governors, to believe that "reasonable compromises" will come, and that Energy development will be speeded up. I find considerable Realism in the recently published Canadian Government study "Energy Strategy for Canada." I look forward to your report on your Inquiry, and your recommendations to Ottawa. Thank you for listening to my submission.

GAS ARCTIC - TO LINK PRUDHOE BAY, ALASKA, AND MACKENZIE-BEAUFORT, CANADA, VIA CANADA MACKENZIE VALLEY ROUTE TO MARKETS ACROSS NORTH AMERICA. CANADIAN-AMERICAN CONSORTIUM WOULD BUILD MAIN LINE FROM ARCTIC COAST TO SOUTHERN ALBERTA BORDERS. GAS WOULD SERVE EASTERN CANADA VIA EXPANDED TRANS-CANADA PIPELINE SYSTEM, U.S. MIDWEST-NORTHEAST WOULD BE LINKED VIA NEW U.S. CONSORTIUM PIPELINE TO GREAT LAKES AND CONNECTIONS VIA EXISTING PIPELINE NETWORKS. ALBERTA NATURAL GAS COMPANY WOULD LOOP EXISTING PIPELINE TO CARRY ALL ARCTIC GAS FOR U.S. WEST REGION, DELIVERING TO EXPANDED PACIFIC GAS TRANSMISSION SYSTEM AT U.S. BORDER. GAS ARCTIC AND COMPETING PROJECTS (TRANS-ALASKAN AND MAPLE LEAF) NOW ADVANCED TO HEARING STAGES IN OTTAWA AND WASHINGTON, AFTER INVESTMENT \$100 MILLIONS IN ENGINEERING, ENVIRONMENTAL, ECOLOGICAL AND ECONOMIC STUDIES.

POLAR GAS - TO LINK CANADIAN ARCTIC ISLANDS GAS TO EASTERN CANADIAN AND U.S. MARKETS, TRANS-CANADA PIPELINE, PANARCTIC OILS LTD., AND U.S. GAS UTILITIES JOINED IN POLAR GAS CONSORTIUM, HAVE RESEARCHED MEANS OF PIPELINING FROM ARCTIC ISLANDS GASFIELDS TO MAINLAND, ARE CONSIDERING THREE ALTERNATE ROUTES ON MAINLAND (VIA MANITOBA, ONTARIO OR QUEBEC) TO CONNECT WITH SYSTEMS SERVING MAJOR NORTH AMERICAN MARKETS. WITH ISLAND GAS RESERVES NOW OVER 12 TRILLION CUBIC FEET, POLAR GAS EXPECTS TO REACH FORMAL APPLICATION STAGE IN 1977.

CONVENTURES LIMITED  CONVENTURES BELIEVES BOTH GAS ARCTIC AND POLAR GAS PROJECTS ARE ESSENTIAL TO HELPING MEET FUTURE NORTH AMERICAN GAS NEEDS, THAT COMBINATION OF CANADIAN-U.S. MARKETS IS ESSENTIAL TO ECONOMIC VIABILITY, AND BOTH WILL BE APPROVED AND BUILT IN SUCCESSION OVER NEXT DECADE. CONVENTURES OWNS 21% OF ALBERTA NATURAL GAS COMPANY, A KEY PARTICIPANT IN GAS ARCTIC; IS ALSO SHAREHOLDER OF PANARCTIC OILS, PRINCIPAL ARCTIC ISLANDS EXPLORER AND POLAR GAS PARTICIPANT. CONVENTURES ALSO OWNS A SMALL PERCENTAGE GROSS ROYALTY ON HECLA, DRAKE POINT AND KING CHRISTIAN GAS FIELDS IN ARCTIC ISLANDS.

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FOR IMMEDIATE RELEASE

MAY 14, 1976

REACTION OF ROBERT BLAIR (PRESIDENT OF FOOTHILLS PIPE LINES AND ALBERTA GAS TRUNK) TO SOME SUGGESTIONS RAISED IN JUSTICE BERGER'S INQUIRY, FOR THE RECORD OF THE INQUIRY.

Calgary --- With other witnesses from Foothills I have appeared considerably at your hearings, Mr. Commissioner, in the communities and at Yellowknife and will not stretch even your renowned patience by repeating today about our work on the Maple Leaf project.

Nevertheless, there have been some suggestions raised in the Calgary hearings to which we react strongly and though our Company is of medium size in some terms, it is still one of the larger Canadian owned and controlled companies and thereby I claim to represent one of the major and responsibly informed points of view in the gas pipeline industry in Canada.

First as to the charge made directly and sometimes in extreme and derogatory language that this regulatory and judicial review is already holding up connecting of additional gas supply to southern Canadians, I testify for your record that such charge is false or misinformed and deserves to be contradicted in flat language.

The only frontier gas available for early connection for Canadian purposes is the gas in the Mackenzie Delta and Arctic Islands. No gas from Alaska has been offered for Canadian use. In the Mackenzie Delta the producers which have developed significant gas supply have said clearly that their plans are for first production in the fall of 1981 and they have conditioned that in terms which suggest that the first

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production will actually occur in the fall of 1982. The reserve quantities there already are deserving of pipeline connection and we believe that the additional potential of the area in the next few years will justify the choice of 42" pipeline which is a size which would achieve relatively low unit costs for the connection.

My Company's business is the connecting of new sources of supply. We know that in order to have a pipeline connection to the Mackenzie Delta in operation in the fall of 1982 it would be desirable to start preliminary field construction during 1979. To do that we should ideally finance in 1978 and in order to complete all construction planning with optimum economy, it would be desirable to receive authorization of the designed project by about the end of 1977, more or less.

That is laying out an ideal schedule as seen by pipeline construction management. If necessary, we could make the in-service time of the fall of 1982 with later regulatory action and government decision and still experience no real delay.

The point to this is that there is simply no way at all that a process of regulatory and judicial and parliamentary review during all of 1976 and all of 1977 would possibly contribute delay to the time at which the frontier gas begins to flow looking at this situation as a Canadian project. We do not believe that this hearing and its participants should be left with the bad taste of some of the statements and charges about urgency and delay which have been made to you.

We know, on the factual basis I have just described, that there is substantial time available in terms of Canada's interests

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to properly evaluate the impact of the pipeline on the peoples of the north. We know there is time to negotiate and make much progress toward settling the Indian land claims. We know there is time to take steps to minimize the impact of development on the native peoples. We know that there is also time to choose carefully among various alternatives of gas sources and schedules and project designs in Canada.

Some of those statements about urgency may have been from misinformation and some have had to do no doubt with the urgency attributed to the transmission of Alaskan gas to U. S. markets. We are quite aware of that United States urgency and our own companies are presently involved in the proposed Fairbanks Corridor - Alaskan Highway alternative which may in its separate way do something really practical to relieve that American problem. Quite possibly the Alaska Highway medium-sized project proposal will in the end provide much the promptest relief of the American problem. I think that what is important is to identify that as an American need and that whatever may be done in Canada to relieve be recognized and weighed as a concession and accommodation of American interests and not as a development urgent for Canadian purposes to the point of over-riding other local objectives which get in its way.

Our own Companies like efficiency and speed of action at least as much as any other, but we don't like to see components of our industry try wilfully to get their own way by demanding urgent decision before the facts and public attitudes are considered.

I do acknowledge that the one case which could need more urgent decision in Canada is that of the Arctic Gas group whose project must meet United States purposes and schedules which seem to

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have more advanced and arbitrary deadlines because of the complexity of the jurisdictional and governmental reviews involved. But what we see is that the real anxiety for a decision in 1976 is for the very individual objectives of one particular project, not for increasing gas supply in Canada as a general aim.

Another issue which has been raised before your hearings is the merit of participation by northern residents, including particularly Indian residents, in the ownership and Board of Directors of the pipeline company which eventually accomplishes the projects. I would like to confirm again in this forum that we endorse and believe in such an arrangement and are continuing to discuss with Government authorities and with representatives of the northern peoples the practical implementation of such arrangements within the projects sponsored by Foothills, whether in the Northwest Territories mainline and community delivery operations or for corresponding operation in the Yukon Territories.

Finally I would like to keep it clear that the Foothills organization is not interested in crashing through a project over the protests or against the interests of the residents. We know that there are sufficient reserves of gas in southern Canada to meet the growing requirements of the Canadian market for some years. Our organization is simply keeping ready and prepared to proceed with construction of the pipeline at such time as the Government of Canada determines after careful review by this inquiry and by the National Energy Board and by Parliament itself that the construction of a Mackenzie Valley Pipeline is required in the best interests of all of the people of Canada including Northerners, Southerners, producers and consumers.

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Contact: S. R. Blair (403) 231-9120

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